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An Address.¹

CONFLICT.

By GLEN V. HICKEY,

President of the Queensland Branch of the British Medical Association.

ONE generation has seen two wars, and on a scale previously undreamt of. In each case the motive was the same—the desire to dominate on the one side and on the other the urge to resist and to retain independence.

It appears more than possible that we may have to endure another such ordeal—one which would almost certainly outdo all previous experience in horror and calamitous effects on the well-being of the human race. Yet, human mentality being what it is, a large percentage of our people have apparently already forgotten the lessons that should have been so deeply impressed on their memory by repeated experience. Our imagination boggles at the ideas of atom bombs, H-bombs, robots in the shape of guided missiles, all controlled by radar or other scientific devices, unknown and some undreamt of only a decade ago.

Our profession has ever been ready to be in the forefront, when the necessity arises to diminish or to repair the human wastage and suffering that follow inevitably in the wake of any of the Four Horsemen, and we can be sure that its members will not be found wanting should the occasion arise again.

¹ Delivered at the annual meeting of the Queensland Branch of the British Medical Association on December 8, 1950.

Now we turn to consideration of conflict of a somewhat different kind, inasmuch as it is of a physically peaceful, but mentally and morally warlike nature. Examples are numerous throughout history, but we ourselves have recently had practical experience with such a conflict—a typical example of what used to be called tyranny, but is now referred to as regimentation.

Here again the motives are a desire to dictate and dominate on the one side and to retain independence of thought and deed on the other side.

It has been alleged that our motives were selfish, that we were "money grabbers" or "grubbers" *et cetera*. Whilst there may have been a substratum of truth in such allegations, I think it is indisputable that the profession as a whole was desirous of action that would be in the interests of the community. Furthermore the community was well aware that such was the case and accordingly supported us in our stand. Without such support it is problematical whether any action of ours could be of avail against the powers that be. In a democracy right is not always might any more than in an autocracy.

It would be waste of time to delve into the history of the past twelve months; doubtless it is all only too familiar to you. Most of us have had it reiterated almost *ad infinitum* and certainly *ad nauseam*.

The lessons to be learnt are the necessity for (a) a united profession, (b) wise leadership, (c) solid support from the rank and file, and (d) preparedness for any further eventualities. In my opinion we had (a), (b) and (c) in full measure, and I believe that we are at present well prepared for any action that may be necessary to further the interests of our members.

It may not be out of place to interpolate here an appreciation of the untiring efforts of our federal delegates,

Dr. Alan Lee and Dr. Harold Horn, who have earned a great debt of gratitude from our Branch.

Now let us consider some conflicts peculiar to our own profession.

(a) The first is the ever-recurring conflict twixt youth and age. We have all seen such conflicts and they are always born of intolerance. Probably if we examined our consciences ruthlessly, we should have to admit that we at some time or other have been either victor or vanquished in such conflicts, which sometimes, alas, cause deep and lasting wounds, although essentially they may be mere squabbles.

The headlong impulsive urges of youth clash with the colder and perhaps more reasoned judgements of age.

I think that here the greater responsibility is on the older generation, and especially does this apply to the acknowledged leaders, to show restraint and generosity. Youth can frequently be led, but rarely driven.

(b) Now let us consider a conflict that is real, if, perhaps, usually overlooked. I refer to a latent but nevertheless deep cleavage between the academician and the practising doctor.

It is perhaps a matter for regret that so few of our members take any real interest in medical education. I refer mainly to undergraduate instruction. We of an older generation have seen a curriculum, which we ourselves regarded with horror and distain, become laden and indeed cluttered with all sorts of extras. Can we truthfully say that the return has been commensurate? In my opinion the answer is a definite negative.

In saying this I am not adopting a *laissez-faire* attitude. I think the medical undergraduate of today receives a better all-round training than was given when I was a student, but I doubt if he is as self-reliant.

The British Medical Association has taken a certain amount of interest in this problem, but is it enough? My impression is, and it is a strong one, that most of our members regard the training as top-heavy.

Many of you have sons or daughters, either graduates or in course of training. I must say perusal of some examination papers has left me with a feeling of awe, not only that anyone could dream them up, but more so that anyone could compile intelligent and intelligible answers.

I have read reports of various committees appointed by various bodies. What better body to go into this most vexed but important question than the British Medical Association? Believe it or not, there are some members who are thoroughly competent to tackle such a problem.

(c) Finally come conflicts of ideas. These at least can be regarded as being beneficial. Theories and hypotheses are brought forward, and by their authors at least are regarded as gospel. Later they gain fervid adherents and are then promoted to the rank of doctrine. History tells us that the path of medical progress is strewn with the remains of such doctrines.

Inevitably most of our beliefs are bound to finish in the discard, but occasionally we are jolted severely by some far-reaching discovery. Generations have been taught and have believed that the inflammatory exudate is a beneficial reaction to a stimulus and is part of a protective mechanism provided by a beneficent Nature.

Now we are told that some of our more recent discoveries have effected their dramatic results by abolition of the exudate. If this is the case it is indeed a conflict of ideas which may have far-reaching results.

But what I would wish to emphasize is that whether or not such theories or beliefs are sound or otherwise matters little in the long run; what matters is that we can hold ourselves ready to stop, look and listen, to digest the things that are of value and so advance a little way toward our common goal, fantasy though it may be—the conquest of disease.

NURSERY INFECTIONS.¹

By KATE CAMPBELL, M.D.,
Melbourne.

THE treatment in hospital of the parturient patient has necessitated provision for the institutional care of the newborn infants. In most instances this has been met with the setting up of the communal nursery. Formerly the infant was cared for in his own home by one midwife, so that the mother and baby were in the position of having a "special nurse" throughout the puerperium. In such a regime there was no chance of infection from other newborns, and the chance of infection from the one attendant was minimal.

The infant in the communal nursery in these days of the forty-hour week is handled by a multiplicity of nurses. The traffic produced by their coming and going is considerable, and is further swollen by the visits of doctors, pathologists, wardsmen *et cetera*, all of whom may be potential sources of infection. In addition, the infant runs the risk of contracting any infection which may be present in the other nursery babies.

It is inevitable, therefore, that infections will occur, and that in communal nurseries conditions are ideal for the spread of infection. Table I (Henderson, 1943), and Table II (Macgregor, 1943) give some idea of the incidence of infection in nurseries, and the incidence of infection in neo-natal deaths.

Before any infection is sufficiently obvious to attract attention it must have been present for a varying time, and it is this lag period which constitutes the danger. Those in charge of midwifery nurseries must be continually alive to the danger of nursery infections.

The problem can be studied under four heads: (i) modes of introduction of infection; (ii) modes of transmission of infection; (iii) general measures for preventing the introduction and spread of infection; (iv) specific measures to prevent spread when cases of infection have occurred.

Modes of Introduction into the Nursery.

Infection may be introduced into the nursery in the following ways. (a) There may be a frank lesion in nurse, doctor, mother, pathologist or wardsmen, with obvious direct transmission. (b) Infection from a carrier-state in the throat or nose of the mother or nursery personnel may start an infection. (c) Infection may arrive via the laundry from an infected laundry worker, infected baskets, laundry bags, cupboards, trolleys *et cetera*. (d) Artificial feeding mixtures or the feeding utensils may convey infection. (e) Infected breast milk from a mother with mastitis or an infected nipple may be responsible.

The Modes of Transmission of an Infection in a Nursery.

The modes of transmission of infection in a nursery are as follows. (a) The hands of the attendant are probably the most frequent means of spread. (b) Communal baths are a real danger and should be abolished, as also should be the communal shower, where the babies are all placed on the same pad. (c) Communal change tables are also a menace, not only from the standpoint of prevention of infection, but also from the viewpoint of general hygiene. Even in careful hospitals, the covering sheet is so frequently contaminated by stool that it is impossible to change it often enough to keep it clean. (d) Bedding and blankets are frequently carriers of infection. (e) "Baby carriers" may be the means of disseminating infection. (f) It has been abundantly demonstrated that dust may carry infecting organisms. (g) Nursery equipment—for example, thermometers and scales—unless adequately looked after may be instrumental in the spread of infection. (h) Communal

¹Read at a meeting of the Section of Obstetrics and Gynaecology and the Section of Pediatrics, Australasian Medical Congress (British Medical Association), Seventh Session, Brisbane, May-June, 1950.

hand towels, nail brushes and tap handles often yield cultures of the infecting organisms. (i) Charts are often placed on the cots of infected babies and thence carry infection to writing materials, desk and the hands of the attendants. (j) Stethoscopes used on an infected baby may also carry infection.

The Means Instituted to Combat Infection.

The means instituted to combat infection will be determined by a consideration of the possible modes of introduction and transmission. Broadly, this effort is directed along four main lines: (a) the control of nursery personnel, (b) the provision of adequate nursery facilities, (c) the maintenance of a satisfactory level of nursery hygiene, (d) laundry control.

TABLE I.
Incidence of Neo-Natal Infection in Obstetric Nursery.
(After Henderson, 1943.)

Condition.	Incidence.
Conjunctivitis	15.9%
Staphylococcal skin infection	6.8%
Thrush	4.9%
Gastro-enteritis	1.25%
Infections of the respiratory tract	0.5%
Pneumonia (primary)	0.14%
Pyelitis	0.09%
Omphalitis	0.07%
Septicæmia	0.06%
Meningitis	0.04%

Control of Nursery Personnel.

Control of nursery personnel is, at the present time, probably the most difficult of the four measures. The main trouble in this era of staff shortages is to obtain sufficient nurses. It is desirable that there should be one nurse on duty for 12 healthy babies. For sick infants, the ratio is ideally one nurse to six, and for premature infants one nurse to four.

It is essential that the sister in charge of the nursery should be experienced. Mothercraft nurses may very usefully be employed to make good the shortage of trained nurses. These mothercraft nurses should have adequate instruction in the dangers of infection and the modes of its transmission. Any illness in the nursery staff constitutes a danger to the babies, and nurses must be made aware of this and encouraged to report any deviation from health. It has been suggested that each member of the nursery staff should have nose and throat cultures prepared as a routine measure, but practically this presents difficulties. Provided that one has the laboratory staff to cope with the work, the hæmolytic streptococci are not difficult to discover. It is, however, another matter when one is dealing with the *Staphylococcus aureus*. It is a well-known fact that the nose is the great reservoir of this organism and that there are many different strains, not all of which are pathogenic. It would probably be beyond the resources of the laboratory to determine the different strains in such routine swabbings. Moreover, it has been estimated by Cruikshank (1946) that *Staphylococcus aureus* can be recovered from nasal swabs in 80% to 100% of neonates.

A similar difficulty presents itself with the suggestion that all mothers should have routine nose and throat swabs examined for hæmolytic streptococci and *Staphylococcus aureus*.

It would appear, therefore, that at present such routine swabbing cannot be carried out.

Nurses should wear gowns, and ideally each should wear an individual gown for attending to each infant, such gown being kept in the infant's locker. Under existing conditions this demands so much time as to be impracticable.

There is a difference of opinion as to the advisability of wearing masks. It is an accepted fact that the usual gauze mask does not prevent droplet infection, but it does at least minimize it. The interposition of "Cellophane" in the masks should be urged. The wearing of masks has an

undoubted psychological and educational effect on the nursery staff, in that it is a constant reminder of the possibility of infection. There are two definite drawbacks to the wearing of masks—namely, that they are uncomfortable, and that if they are fingered they cause a real risk that the oral and nasal organisms may be conveyed to the nurses' fingers. Nurses should be constantly reminded of this fact. It would seem, however, that the advantages of masking outweigh the disadvantages.

Because of the *Staphylococcus aureus* in the nose, nurses should be educated to wash their hands after using handkerchiefs.

It is important that all nursery personnel be educated in the principles of nursery hygiene.

TABLE II.
Incidence of Infection in Deaths in Neo-Natal Period.
(After Macgregor, 1943.)

Subjects.	Percentage Showing Infection.
Stillborns	6.0
1 to 3 days	16.7
4 to 7 days	47.2
8 to 14 days	71.0
15 to 21 days	73.9
22 to 28 days	82.4

Physicians are also sometimes at fault in doing nursery rounds while suffering from respiratory or gastro-intestinal infections, and since they pass from one nursery to another such conduct is particularly hazardous.

The Provision of Adequate Nursery Facilities.

The provision of adequate nursery facilities has been frequently overlooked in the past by hospital architects. There is in general in nurseries a lack of hand basins. Sometimes there are none, and the nurses must wash their hands over the babies' bath. This shortage must be remedied and hand basins installed in every nursery. Also the taps must be of the elbow or pedal variety. There should be adequate spacing of cots—30 square feet per cot; and a distance of three feet is desirable between the centres of each cot.

There should be individual lockers for each infant's personal requisites. Hygienic facilities for disposal of soiled napkins must be provided. There should be a sufficient number of hand towels, preferably individual or disposable.

Antiseptic lotion in bowls should be of effective strength and changed as frequently as is necessary.

The doors should be of the swing variety. Treatment of the floors with spindle oil is recommended by authorities, and where practicable electrostatic air filtration and positive pressure ventilation are recommended.

The results of the use of ultra-violet irradiation and glycol vapour are at present indecisive.

In these days of rising costs it is sometimes difficult to persuade hospital managements to build small nurseries. We should endeavour to keep the number of infants in one nursery as small as conditions permit, preferably not more than 12. The use of partitions will be helpful if there are large nurseries.

There should be a suitable "food room" with refrigerator where expressed breast milk or complementary feedings can be stored. There should also be facilities for the making up of any artificial feeding which may be required. There should be a separate sterilizer for sterilizing bottles and feeding utensils.

Nursery Hygiene.

It is most important that all nursery personnel should receive adequate instruction in the important subject of nursery hygiene. Constant supervision is also necessary to

see that a high standard is maintained. It is a constant source of surprise to all those in charge of nurseries to observe how frequently incorrect methods of management appear "out of the blue", and once having been introduced are, like weeds, exceedingly difficult to eradicate. All those working in nurseries should have a lively appreciation of the methods by which infection enters and spreads in a nursery. Communal baths and change tables having been dispensed with, the infants are all cot-changed, and each infant should have his own toilet articles. It is the ideal for each infant to have also his own thermometer. It is advised that temperatures should be taken in the axilla and not in the rectum. Soiled napkins should be received into boilable bags, preferably in bins with lids operated by foot pedal, and should be removed at reasonable intervals from the wards. Many nurses do not wash their hands after changing a baby's napkin. There is a common idea that since a young infant's stools are not offensive they must therefore be harmless. Nurses should be instructed in the fact that the normal infant's stools teem with bacteria which, whilst not pathogenic, may cause diarrhoea or other trouble if they contaminate feeding utensils or feedings in sufficient numbers.

If the infant should have infective diarrhoea, failure to wash the hands after changing the napkin will rapidly spread the disease. The nurse should wash her hands each time after changing an infant, and should she have a large number of infants in her care, rubber gloves may be provided. It is an advantage to have a "change nurse" who does all the changing of diapers and who has nothing to do with feeding the infants.

Where "baby carriers" are used they should be divided by partitions into individual compartments large enough to carry one infant. The baby's name should be on his particular compartment, and he should always be placed therein when being taken to his mother. The higgledy-piggledy placing of infants in these carriers, crowded together, constitutes a grave risk of infection that cannot fail to arouse consternation in the paediatric breast.

Infants with any infection—for example, conjunctivitis—should not be placed in the carrier, but should be taken to their mothers separately.

The scales, being a communal piece of equipment, should receive attention. No infant with any infection should be weighed thereon. A piece of tissue paper or a clean napkin should be placed on the scales for each separate infant.

If communal thermometers are used, they should be adequately sterilized.

When artificial feedings are made up, they should be prepared outside the nursery in the food room, by a nurse who does not change the napkins.

The feedings should be made up in a sterile manner and stored in a refrigerator. Bottles, mouth pieces, gavage catheters, and all feeding utensils should be sterilized and stored under correct conditions. They should be sterilized in a separate bottle sterilizer. The nurse should wash her hands before feeding a baby.

Cord dressings must be kept sterile and covered. Clothing and bed linen must receive adequate attention.

Because of the difficulty in sterilizing woollen articles, they should not be placed next to the infant's skin. Similarly, blankets should be adequately protected by sheets from coming into contact with the infant's skin. Oiling of the blankets is recommended by authorities on the prevention of cross-infection.

Laundry Control.

Laundry control involves supervision of the workers in the laundry, who should be trained to report any illness, however minor, lest it be a possible source of infection. The bags in which soiled napkins are received must be boilable, and the napkins must be laundered separately from other articles.

The clean laundered articles must be conveyed to the ward in clean containers, and separate trucks or baskets must be kept for clean and dirty articles. The articles must

be stored in a protected place. It is essential that the supply of linen be adequate.

Institution of Measures when a Case of Infection has Occurred.

When a case of infection has occurred, the first essential is prompt isolation. The isolation ward should be a complete unit and must have its own staff, whose members do not attend to any healthy babies either by day or by night. The nurses must wear gowns and masks. Napkins from the infants must be dropped into antiseptic solution and kept covered. (It has been pointed out by Mackerras and Mackerras (1949) that the only satisfactory method of sterilizing an infected stool is to boil it with the napkin.) There should be a sterilizer in the isolation unit. The isolation nurse must not enter the food room. The artificial feeding, if required, should be received in a jug placed by the isolation nurse on a table outside the door of the ward. A "clean" nurse pours the food into the jug without touching it.

The infant should not be moved from the isolation ward till he can be proved to be free from infection. If there is the possibility that he may be a carrier, he should remain in isolation till he is discharged home.

A search should immediately be made for the originator of the infection and for carriers among the infants, mothers, staff and, when indicated, the laundry.

Attention must be paid to adequate sterilization of bedding, linen, blankets and cots from the infected baby.

The infants in the nursery from which the original case came are regarded as potentially infected; therefore no further babies are admitted to this nursery, which in the course of about two weeks will be empty. After this time the nursery is thoroughly cleansed and disinfected. It is allowed to remain idle for some days with free admission of air and sunlight before being used again.

During this period a third nursery is set up—"the clean nursery"—into which all infants born after the occurrence of the infection are admitted. This must have a staff entirely separate from the original nursery.

The staffing and setting up of these two additional nurseries, the isolation nursery and the "clean" nursery, impose a severe strain when both nursing staff and accommodation are short; but unless they are instituted one cannot stop the spread of a nursery infection.

In epidemics of diarrhoea it is a great help if one can use a separate room as a "suspect nursery" in which can be placed those infants whose symptoms are suspicious but not diagnostic, until such time as they declare themselves normal or infected.

Types of Nursery Infections.

The types of infection which are commonly encountered in neo-natal nurseries are (i) sepsis, (ii) gastro-intestinal infections, (iii) respiratory infections and (iv) monillal infections. "Inclusion body blenorrhoea" is occasionally encountered, while tetanus fortunately is a pathological rarity.

Sepsis.

Sepsis in its various guises is the commonest infection. It is most commonly due to the *Staphylococcus pyogenes*, less often to the haemolytic streptococcus. Nurses should be instructed to be continually on the watch for the mildest evidences of sepsis—for example, conjunctivitis, paronychia, mild omphalitis, small skin pustules, or *impetigo neonatorum*. Rhinitis as a septic manifestation is frequently overlooked, the infant being merely regarded as "snuffy".

These are frequently the precursors of major or fatal septic lesions in the infants, and are the means whereby the infection continues in a nursery, often for years. Any infant showing such a lesion is immediately isolated and treated, and not returned to the nursery till he is free from any sign of infection.

Below is a schematic presentation of the surface infections by which sepsis may manifest itself (Figure I).

Generalized sepsis may manifest itself in the following forms: septicæmia, pyæmia, peritonitis, osteomyelitis, arthritis, meningitis, pericarditis, empyema, peritonitis, pneumonia, parotitis.

It is advisable to take material for culture from the lesion when possible, to identify the causative organism, and to determine its sensitivity to penicillin and streptomycin. For mild septic manifestations—for example, conjunctivitis or paronychia—the oral administration of penicillin is usually effective—20,000 units three-hourly or 30,000 units four-hourly, all round the clock for three or four days. Others prefer parenteral administration. Should the organism be insensitive to penicillin, the infant is given

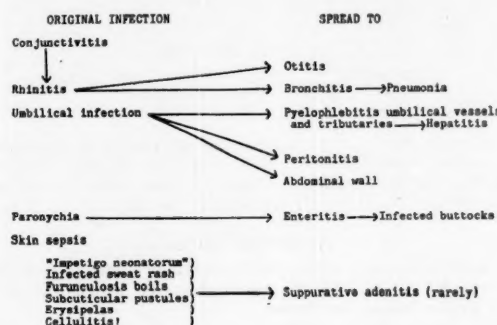


FIGURE I.

streptomycin. We find the usual dose of 20 milligrammes per pound of body weight per day effective. For the strains insensitive to both penicillin and streptomycin, aureomycin, 12.5 milligrammes per pound per day, is given by mouth in divided doses.

The sulphonamides suffer from the disadvantage that it is sometimes difficult to ensure that the infant takes sufficient fluid for the excretion of the drug, and renal complications will then occur. Local applications may be any of the following: penicillin cream, gentian violet, mercurochrome, "Monacrin", *Unguentum Hydrargyri Ammoniaci Dilutum, et cetera*.

For the conjunctivitis the intensive penicillin drop therapy is very effective. With a concentration of 2000 units or more of crystalline penicillin per millilitre, a drop is instilled every minute for five minutes, every five minutes for an hour, every hour for twelve hours, then every two hours for the next twenty-four hours. Should the organism be penicillin resistant, others drops may be used—for example, sulphacetamide (10%).

The late results of neo-natal sepsis may be maiming or fatal. Suppurative arthritis of the hip may end in destruction of the head of the femur, and omphalitis may cause a spread up the umbilical vessels with resultant portal or splenic thrombosis.

Septicæmia in newborn infants may be present with very few signs. The infant may show asthenia, inability to suck, jaundice and usually a palpable spleen. The pyrexia is often inconsiderable.

The *Escherichia coli* may cause septicæmia, and the meningitis of the newborn is usually due to this organism. It is a well-known cause of pyelitis and may also be recovered from purulent discharges from the ear or nose.

Purulent collections in newborn infants may be misleading, in that they often form white swellings of the "cold abscess" type without superficial inflammation. It is remarkable also how little periostitis appears to distress a newborn baby.

Gastro-Intestinal Infections.

Gastro-intestinal infections may be due to dysenteric organisms, but this is infrequent. The usual type is the "epidemic diarrhoea of the newborn" or "nursery diarrhoea", which is thought to be a viral infection, and which may be of many different varieties. One encounters the severe dehydrating enteritis, dangerous to life, that occurs when the population outside the nursery is suffering from "gastric flu". Some forms are associated with sore throat, with pneumonia or with encephalitis. Other epidemics occur in which the infants pass very pale stools, which may become quite white and suggest a similar infection to infectious hepatitis. At other times the infection appears to be more of the nature of proctitis, with practically no constitutional disturbance.

Both breast-fed and artificially-fed infants are equally affected in these viral types of diarrhoea. There appears to be no doubt that the infection is air-borne and is not carried by way of the food. Premature and debilitated full-time infants are particularly susceptible.

Septic infection of the intestine may produce enteritis.

A non-specific type of diarrhoea occurs in nurseries with poor hygiene. Cummings (1947), who investigated such outbreaks, found them to be due to massive infection with organisms usually considered to be of low or absent pathogenicity. He concluded that "filth in the nursery was the principal contributing factor".

The usual methods of controlling the infection are instituted and the stools sent for cultural examination. Rarely, however, are pathogens found in newborn infants' stools, at any rate in Melbourne. This makes it difficult to decide when an infant is free from infection. He is therefore kept in isolation till his discharge from hospital.

The treatment consists in the prevention of dehydration and the administration of sulphaguanidine, one grain per pound, or phthalylsulphathiazole, one-quarter of a grain per pound, every four hours; in suitable cases response occurs in forty-eight hours. Oral streptomycin therapy may also be used, 0.5 gramme per day in divided doses the first day, thereafter 0.25 gramme per day for the next four or five days. "Chloromycetin" should be valuable in a suggested dose of 25 milligrammes per pound per day divided into three-hourly doses. For the first twenty-four hours 5% glucose solution is given by mouth, or nothing if the infant is vomiting, fluid being given parenterally. A weak "Nestlé's" sweetened condensed milk mixture, 1 in 16, is then usually tolerated, to which may be added casein hydrolysate ("Pronutin", "Casydrol" or "Essenamint"); the usual strength is one tablespoon to the ounce of water. One drachm of this solution of "Pronutin" per pound of body weight is added to the day's feedings, or double this amount of "Casydrol" or "Essenamint".

The infant is given vitamin B complex by injection, 0.5 millilitre on alternate days, along with 50 milligrammes of vitamin C until the diarrhoea subsides.

The strength of the condensed milk mixture is increased daily, 1:14, 1:12, 1:10, 1:8, depending on the infant's tolerance, and when the stools have been normal for a week he is gradually worked back on to his permanent feeding.

Should the infant require intravenous therapy, 4% of glucose solution in one-fifth normal saline is given, and if it is required for more than twenty-four hours, this should be fortified with casein hydrolysate solution, or serum can be given, usually in an amount equal to 0.5 ounce per pound of body weight.

Commercial preparations of hyaluronidase—for example, "Hydase"—are now available, and when added to the fluids given subcutaneously admit of their rapid and painless absorption, often obviating the need for intravenous therapy.

Respiratory Infections.

Respiratory infections are usually contracted from nursery personnel or mothers with colds. These start as coryza with nasal obstruction, often with nasal discharge.

Thence bronchiolitis and bronchopneumonia develop, and every year some babies die from these infections.

It is important that the infant should be moved to the isolation ward at the first sign of such an infection, as it spreads exceedingly rapidly through a ward.

These infants have a great deal of bronchial secretion which they are unable to cough up. They are best nursed lying flat and turned from side to side to facilitate the drainage of this secretion. Oxygen is required as a rule, and they usually respond in a few days to penicillin and streptomycin exhibited together. It is possible that the new antibiotics—for example, aureomycin—may be more effective still in these cases of bronchopneumonia.

Monilial Infections.

Monilial infections are not uncommon, particularly in overcrowded nurseries.

The infection may derive from maternal vaginal moniliasis, in which case it usually appears in the first five days. If it is acquired from other sources it appears after this, and then is usually conveyed by infected feedings or feeding utensils, or by the hands of the attendants, or it may be carried in the mouths of the attendants.

Monilia usually attacks the mouth, but it may thrive on any moist acid surface. Infants with thrush in the mouth frequently have "thrush buttocks". The typical lesion is a small pink circle, the size of a match head, from the centre of which the outer layers of epidermis have disappeared and at the periphery of which the lifted epidermis looks like a small silver halo. These are best seen at the outlying areas of the rash. In the older areas they have run together and become secondarily infected, so that the buttocks in long-standing cases look like red glazed chintz. They are extraordinarily resistant to the usual applications for sore buttocks, but heal in a gratifyingly short time when 1% gentian violet solution is applied twice a day.

Monilial infections of the skin are also fairly frequently seen. The skin looks as though it has been eaten by silverfish, the lesions being characteristic.

Buccal thrush in a young infant should never be treated lightly. It may spread to the oesophagus and set up severe oesophagitis which may be fatal.

The best application is a 1% solution of gentian violet twice a day. In a severe case it may require to be applied more frequently. Care must be taken to see that the dye does not irritate the mucosa. One sometimes sees the under-surface of the tongue denuded of epithelium and then attacked by a severe secondary infection as a result.

Any infant with a thrush infection anywhere about the body must be isolated till all lesions have cleared.

Conclusion.

The control of infection in general in nurseries in private and community hospitals presents a difficult problem. These nurseries are not under the control of one medical officer and are visited daily by large numbers of different doctors, many of whom hold different views on the management of their patients. It is in these hospitals, too, that staff shortages are particularly felt, and many have to depend, especially the private hospitals, on part-time helpers, who are not only unreliable in attendance, but who may have been nursing patients from whom infection can be carried. The difficulty in staffing and the lack of unified control mean that an infection once established continues in these nurseries. It would be advantageous if each hospital had a paediatric adviser or advisers, who would outline standard methods of procedure in the nursery to which nurses and doctors should conform, and who would be called in when any infection occurred. Unified and informed direction is necessary.

It is obvious, therefore, that it is only by unremitting vigilance and attention to detail that neonatal nurseries can be kept free of the hazards of the introduction and spread of infection.

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OVARIAN PREGNANCY, WITH A REPORT OF A CASE.

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OVARIAN PREGNANCY is rare and, as the total of authentic examples remains low, each new case seems worthy of record. It is intended to report a case which occurred at The Women's Hospital, Melbourne, in November, 1948.

Historical Survey.

In 1614 Mercer recognized the theoretical possibility of pregnancy in the ovary, while Maurice in 1682 described the first clinical example.

Further cases were recorded and accepted until the nineteenth century, when doubts were raised (Velpeau, 1835; Mayer, 1847) as to whether these were pregnancies of true ovarian origin or merely dermoid cysts. Some authorities, among them Lawson Tait and Bland Sutton, even denied that ovarian pregnancy could occur.

Spiegelberg (1878) put forward four criteria (*vide infra*) with which all specimens should conform in order to be accepted in this category, and in 1897 Kouwer described a case meeting these requirements.

In 1908 Bryce, Teacher and Kerr, from Glasgow, published a full account of the histology of this condition and were able to review six other authentic cases.

Incidence.

Less than 1% of all ectopic pregnancies occur in the ovary. Thus ovarian pregnancy cannot be expected more often than once in 30,000 pregnancies.

Ætiology.

Earlier theorists sought to explain the condition on a purely mechanical basis, arguing that the presence of a developing pregnancy within the ovary presupposes fertilization *in situ*. Many theories have been put forward to account for the retention of the ovum in the ovary. Some implicate ovulation itself, suggesting rupture of one follicle into another, either alongside it or overlying it (Leopold, 1882); abnormal firmness of the *discus proligerus*, resisting release of the ovum at rupture (Russell and Black, 1940), or inability of the follicle to build up sufficient internal pressure at ovulation to expel the ovum (Bittmann, 1941); imprisonment of the ovum either in clot forming at the site of rupture (Gerstel, 1931), or after inefficient rupture due to inherent tunical thickening (Wollner, 1942).

Others suggest pathological conditions in the pelvis, peritoneal adhesions involving the ovarian surface, tunical

¹Those interested are referred also to the excellent article by S. D. Rubbo (1948), "Infection: A Hospital Problem", *THE MEDICAL JOURNAL OF AUSTRALIA*, Volume II, page 627, to the "Report on Neonatal Mortality and Morbidity", Ministry of Health, London, His Majesty's Stationery Office, and to "Standards and Recommendations for Hospital Care of New-born Infants", by the American Academy of Pediatrics on Fetus and Newborn.

thickening following perioophoritis, or adhesions obstructing the approach of the ovum to the fimbriated ostium of the tube.

In the light of present knowledge these views are no longer tenable. It is now known that penetration of the ovum by a spermatazoon requires, in part at least, the action of a hyaluronidase liberated by spermatozoa upon hyaluronic acid present in the *corona radiata* surrounding the ovum. This process, if occurring in or near the ovary, would be inhibited by blood extravasated during rupture, in the serum of which an antihyaluronidase has been found. Similarly, inhibition of enzymal dissolution of the vitelline membrane by other serum antisubstances may be significant (Rock, 1949).

1943 *et cetera*); other authors have remarked its absence. It is now thought that implantation needs available maternal blood only and not decidua or endometrium (Rock, 1949). Probably once the tubal mechanism for carrying the fertilized ovum to the uterine cavity is disordered, ectopic nidation will occur, usually in the tube, occasionally on the peritoneum or in the ovary.

Pathology.

The four criteria of Spiegelberg essential to diagnosis are as follows: (i) the gestation sac must occupy the anatomical position of the ovary; (ii) it must be attached to the uterus by the utero-ovarian ligament; (iii) the Fallopian tube must be entirely separate from the wall of



FIGURE I.

Photomicrograph of section of ovary showing ovarian substance, extensive hemorrhage, and a chorionic villus. ($\times 66$.)

Further, in its early stages of development, the fertilized ovum has such erosive powers that, returning to the ovary, it can, after cortical attachment (Meyer), burrow its way into the ovarian substance, the surface hiatus subsequently healing over, thus accounting for the intra-follicular and juxtafollicular locations described in some cases. Such extraovarian fertilization would provide time for the ovum to undergo necessary maturation changes between extrusion and fertilization, and would allow luteinization to commence in the Graafian follicle from which it came.

Thus it is probable that ovulation and fertilization occur in the usual way and that there is failure by the Fallopian tube, through deformity or dysfunction, to convey the ovum to the uterus. Several authors have referred to a period of sterility preceding ovarian pregnancy, which no doubt reflects the disturbance in tubal function.

The part played by ovarian endometriosis (Sampson, 1924) or Müllerian remnants (Likes, 1932) in providing a favourable nidus for implantation has been much discussed. Many cases in which endometriosis was found adjacent to the ovarian gestation sac have been recorded (McKenzie,

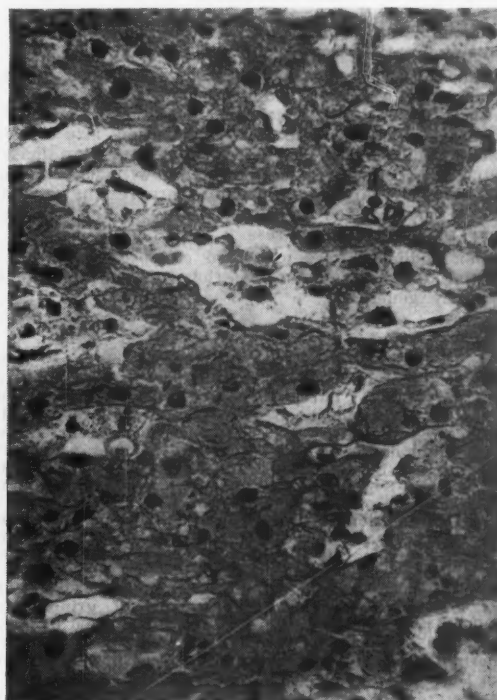


FIGURE II.

Photomicrograph of section of the corpus luteum in the same ovary. ($\times 252$.)

the sac; (iv) definite ovarian tissue must be demonstrable in association with the sac.

Ovarian pregnancy may follow three courses.

If the blood supply becomes inadequate, death of the fetus may occur. This results in absorption in the early forms and, in more advanced cases, in gradual fibrosis or retention of the sac, even with mummification.

Rupture of the sac may take place as in cases of tubal pregnancy, resulting in local hæmatocele or generalized hæmoperitoneum.

Some ovarian pregnancies may progress to or towards term, cases in which a living child has been delivered having been recorded several times (Strumpf, 1943).

In the longer gestations it may be difficult to recognize the structures involved, and only careful examination will reveal the correct diagnosis.

The pathological picture on cross-section is essentially that of a shiny amniotic sac, surrounded by chorionic villi infiltrating the neighbouring tissues, the whole encircled by ovarian substance. There is much increase in vascularity of the maternal tissue, and sinusoidal spaces occur

in response to the increased nutritive demands. In these spaces the ends of chorionic villi have been described. Haemorrhage into ovarian stroma adjacent to the villi is common and often involves the entire ovary.

Some discussion has taken place as to whether decidual reaction occurs in the stroma; present opinion is that the cells in question represent an attempt at luteinization by the neighbouring follicular and thecal cells.

The discovery of a foetus is by no means universal. Thro (1935) states that embryos were present in only 19 of 43 cases, and a review of recent reports shows 16 in 28 cases.

Hydatidiform mole of the ovary has occurred (quoted by Novak), though chorionepithelioma following ovarian pregnancy has not yet been described.

Clinical Features and Differential Diagnosis.

No preoperative diagnosis can be made.

In most cases some amenorrhoea, often with irregular vaginal haemorrhages, and vague abdominal pains are present. With slight symptoms and a pelvic tumour the differential diagnosis, according to position, size *et cetera*, must be made from ovarian cyst, tubo-ovarian mass or uterine enlargement. A larger tumour with palpable fetal parts may be regarded as a normally progressing pregnancy and its true location be revealed only at the onset of a labour that fails to progress.

When sudden severe pain and collapse occur, the differential diagnosis must be that of ruptured ectopic pregnancy generally.

Report of a Case.

G.L., aged twenty-nine years, had one child, aged nine years, and had had an abortion induced seven and a half years previously. Three years previously a diffuse goitre associated with menstrual irregularity had responded to conservative measures. Her menses now recurred every twenty-eight days and lasted four or five days, with normal loss. Her last normal menstrual period began on August 14, 1948. In mid-September, fearing pregnancy, she commenced a daily routine of syringing herself with carbolic soap and water. In addition she occasionally inserted a sponge as a cervical dilator and took quinine by mouth. On September 27, whether from this interference or not, vaginal haemorrhage commenced, three weeks after the due date. The loss was of the usual amount, and the flow lasted four days, but was associated with spasms of gripping sub-umbilical pain different from her customary mild dysmenorrhoea. On October 25 she again had what appeared to be a normal menstrual period, this time with no pain other than the usual type.

Thereafter she remained well until November 5. During the morning she saw a dark vaginal discharge; this recurred twice later. At 11 a.m., after straining at stool, she was seized by pain in the hypogastrium. In a few minutes this became of severe, constant, gripping nature, radiating into the groins, through to the rectum, then over the abdomen. She lay down and became aware of an aching pain in either shoulder. By 12.30 p.m. she complained of dizziness and light-headedness. The pain was still generalized, but maximal below the umbilicus. An attempt to walk produced a "bearing-down" sensation. Later she felt more comfortable, but was dyspnoeic. By 10 p.m. the pain had again grown worse and medical advice was obtained. "Internal haemorrhage" was diagnosed, and she was admitted to hospital.

On examination of the patient, her respiration was grunting and she appeared pale. Her pulse rate was 120 per minute and her blood pressure was 120 millimetres of mercury, systolic, and 60 millimetres, diastolic. Her tongue was clean and her breath was not abdominal. Her urine appeared concentrated. The heart, lungs and reflexes were normal. There was a moderate degree of generalized abdominal tenderness, and the wall was tense but not "board-like". Vaginal examination revealed a moderately firm cervix with closed os, an anteverted small uterus and a very tender resistant area in the right fornix. The posterior fornix was also tender, and pain was experienced on moving the cervix.

A provisional diagnosis of ruptured ectopic pregnancy was made and the patient was prepared for operation.

When the peritoneum was opened, much dark blood was encountered. Both Fallopian tubes were delivered into the wound, but appeared normal.

In the region of the right ovary was a dark haemorrhagic mass. This was found to be blood clot surrounding an enlarged ovary. The tube was not involved. The clot was removed and the ovary was found to be roughly triangular, measuring about two inches per side. The tunica was glistening and white; at the pole farthest from the mesovarium was a small rupture about a quarter of an inch long through which bright blood was oozing. The consistency of the mass was that of a ruptured cyst, with a core of solid ovary at the proximal pole.

The uterus and remaining tube and ovary were found to be normal, and partial oophorectomy was performed to preserve the macroscopically normal portion. Thirty-five ounces of blood-stained fluid and about 20 ounces of dark clot were evacuated from the peritoneum, and the abdomen was closed without drainage.

The post-operative course was satisfactory. The haemoglobin value being 8.0 grammes *per centum*, a blood transfusion of two pints was given and on the tenth day the patient was sent home. At the beginning of the first post-operative menstrual period (thirty-second day), an endometrial biopsy revealed late secretory mucosa. Six weeks after operation pelvic examination revealed a non-thickened right Fallopian tube and a mobile right ovary of apparently normal size and sensitivity. A hysterosalpingogram on January 24, 1949, confirmed the patency and integrity of the Fallopian tubes.

Four months after operation the patient reported at the hospital ante-natal clinic with a normal intrauterine pregnancy, which subsequently miscarried at the sixteenth week.

Pathological Report.

The specimen consisted of a haemorrhagic cystic mass which contained a foetus one centimetre in length within its cavity.

Many blocks were cut through the mass; a number of them consist only of blood clot containing more or less degenerated chorionic villi. In other blocks one sees that the blood clot is surrounded by a thin layer of young fibrous tissue immediately followed by a thick layer of lutein cells which show the characteristic testoon of the corpus luteum of pregnancy. In still other blocks the lutein layer is compressed and very thin, and here one observes some anchoring chorionic villi and some trophoblastic cell invasion of the underlying stroma. The microscopic findings therefore establish the diagnosis of ovarian pregnancy.

Summary.

1. The historical background, aetiology, general pathological features and differential diagnosis of ovarian pregnancy are briefly reviewed.
2. A case is reported in which treatment consisted of partial resection of the involved ovary.

Acknowledgements.

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METHAEMOGLOBINÆMIA RESULTING FROM POISONING IN CHILDREN.

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METHAEMOGLOBINÆMIA (or methæmoglobinocythæmia—Fairley, 1941) is not infrequently found in children as a result of the ingestion of certain poisonous substances. The group of poisons causing methaemoglobinæmia was the third most common cause of poisoning treated at the Children's Hospital, Melbourne, during the past three years and eight months, being exceeded only by kerosene and phenobarbitone. Although the state of methaemoglobinæmia may be mild, with spontaneously reversible changes, severe and even fatal cases may result (Walliker and Baxter, 1949). My purpose in presenting a group of eight cases is to show that this condition can be promptly diagnosed and rapidly cured with specific treatment.

Reports of Cases.

From January 1, 1947, until September 1, 1950, 139 small children suffering from poisoning were treated at the Children's Hospital, Melbourne. Eight of these children were suffering from methaemoglobinæmia, the cause of which was identified in six cases as being due to the ingestion of a common household substance. Three children (Cases IV, V and VII) were critically ill on arrival at the hospital, being intensely cyanosed, semiconscious, and dyspnoic, with severe peripheral circulatory failure. Two children (Cases I and VIII) were intensely cyanosed, with early circulatory failure, but were not unconscious or in any respiratory distress. The remaining three children (Cases II, III and VI) were deeply cyanosed, but were not otherwise affected.

Three patients (Cases I, II and III) received no specific treatment and recovered spontaneously over a period of one to three days. This slow recovery was in pronounced contrast to the dramatic improvement shown by the more severely affected children receiving specific therapy.

As most of these patients were admitted to hospital at night, there was an inevitable delay in spectroscopic examination of the blood, in which an absorption band for oxyhemoglobin was then found. It was not appreciated that to demonstrate the absorption band for methaemoglobin if examination is delayed, it is necessary to store the specimen of blood under oil in a refrigerator (Wallace, 1947). In all cases the clinical features and the rapidity of response to treatment made the diagnosis of methaemoglobinæmia certain. Those patients who were treated with

methylene blue were given a 0.4% aqueous sterile solution intravenously, as this was the only sterile solution available.

CASE I.—D.S., a male child, aged fifteen months, was admitted to hospital on January 31, 1947, having swallowed approximately half an ounce of an aniline shoe dye two and a half hours previously. A salt and water emetic given immediately by the parents had no effect, but the child vomited two hours later. One and a half hours after taking the poison he became cyanosed, and on arrival at hospital he was intensely cyanosed with early circulatory failure, but with no loss of consciousness or embarrassment of respiration. No abnormality of the heart, lungs or central nervous system was found. A provisional diagnosis of methaemoglobinæmia was made, and the stomach was washed out. General supportive treatment and oxygen were given, but the child received no specific therapy. The cyanosis gradually and completely cleared by the third day, when he was sent home well.

CASE II.—E.P., a female child, aged twenty-two months, was admitted to hospital on July 5, 1947, having swallowed approximately one ounce of a proprietary furniture polish containing nitrobenzene (1%) three and a half hours previously. She became cyanosed within one hour of taking the poison, and one hour later her stomach was washed out by the family medical practitioner. At the time of admission to hospital, the child was cyanosed but conscious, with normal respirations and no circulatory failure. The heart, lungs and central nervous system were normal. A provisional diagnosis of methaemoglobinæmia was made, and she received general supportive treatment and oxygen. No specific therapy was given. Next day the child was well, but the cyanosis did not clear for a further two days, when she was sent home.

CASE III.—D.Z., a male child, aged sixteen months, was admitted to hospital on January 16, 1948, having swallowed approximately two ounces of an aniline shoe dye one and a half hours previously. A salt and water emetic was immediately given by the parents with effect. Cyanosis occurred within one hour of taking the poison. On examination, the child was deeply cyanosed, but fully conscious and screaming, with no evidence of circulatory failure or dyspnoea. The heart, lungs and central nervous system were found to be normal. A provisional diagnosis of methaemoglobinæmia was made, his stomach was washed out and he received general supportive treatment, but no specific therapy. Next day, the cyanosis had disappeared, and the child being well was sent home.

CASES IV AND V.—E.L. and G.L., sisters, aged thirty-one months and eighteen months respectively, were admitted to hospital on January 6, 1949, with intense cyanosis. The younger child was unconscious and dyspnoic with severe circulatory failure, while the elder child, although semiconscious, confused and dyspnoic, had less circulatory impairment. No abnormality was discovered in the heart, lungs or central nervous system of either child. There was no history of poisoning, cyanosis having developed within an hour of finishing the evening meal. However, both children vomited fifteen minutes later, the vomitus being stained blue. A provisional diagnosis of methaemoglobinæmia was made, and each child's stomach was washed out. As both children were moribund, it was decided to perform a venesection and replacement transfusion, in addition to giving methylene blue. It was not appreciated at this time that methylene blue acted so rapidly. While preparations were being made, the younger child stopped breathing, and artificial respiration was necessary. Group O (IV) blood was transfused to each child, and a simultaneous venesection was performed. Six millilitres of a 0.4% sterile aqueous solution of methylene blue were administered intravenously to the younger child and eight millilitres to the elder child (approximately two milligrammes per kilogram of body weight). Within fifteen minutes improvement was noticed in both children, and within one hour both were much less cyanosed, conscious, and crying vigorously. By next morning they were normal, without any trace of cyanosis, and they were sent home two days later.

Although venesection and replacement blood transfusion probably aided the elimination of abnormal pigments, the improvement was so rapid that it was considered that methylene blue was the more effective agent. The stomach contents of both children were analysed, but the nature of the poison was not discovered. A sample of blood examined spectroscopically several hours later when time was available showed the absorption band of oxyhemoglobin alone.

CASE VI.—M.S., a male child, aged twenty-four months, was admitted to hospital on July 7, 1950, having swallowed an unknown amount of a proprietary furniture polish two hours previously. He vomited soon afterwards, but one hour later became cyanosed. On examination he was deeply cyanosed, but fully conscious, with no respiratory distress or circulatory failure. No abnormality of the heart, lungs or central nervous system was found. A provisional diagnosis of methæmoglobinæmia was made, the stomach was washed out, and four millilitres of a 0.4% sterile aqueous solution of methylene blue were injected intravenously (approximately 1.2 milligrammes per kilogram of body weight). Within five minutes there was a noticeable improvement in colour, and twenty minutes later the child's colour was almost normal. He was sent home, well, the next day. Blood was taken for spectroscopic examination, but even with a delay of less than one hour the absorption band of oxyhæmoglobin alone was found.

CASE VII.—M.S., a female child, aged twenty-six months, was admitted to hospital on July 31, 1950, having one and a half hours previously ingested a very small amount of a proprietary marking ink, which she immediately spat out. The child's father estimated that no more than two millilitres had been taken. One hour later she became cyanosed, and the cyanosis rapidly deepened. The parents soon noticed that she was cold, limp and semiconscious. On examination she was stuporose, pulseless, dyspnoic and intensely cyanosed. A provisional diagnosis of methæmoglobinæmia was made, and 10 millilitres of a 0.4% sterile aqueous solution of methylene blue were injected intravenously without delay (approximately 2.5 milligrammes per kilogram of body weight). Owing to the critical condition of the child, blood was not taken for spectroscopic examination, and her stomach was not washed out until methylene blue had been given. Within ten minutes improvement was noticed, the colour and circulation had improved, and there was no respiratory distress. One hour later improvement was obvious, the colour was almost normal, and the child was able to sit, stand and talk. She was sent home next morning, perfectly well.

CASE VIII.—E.M., a female child, aged seventeen months, was admitted to hospital on August 13, 1950, having swallowed approximately half an ounce of a proprietary furniture polish two hours previously. She vomited soon afterwards, but one hour later became cyanosed. On examination, she was intensely cyanosed with cold extremities and early circulatory failure. She was conscious without respiratory distress. The heart, lungs and central nervous system were normal. A provisional diagnosis of methæmoglobinæmia was made, and five millilitres of a 0.4% sterile solution of methylene blue were injected intravenously (approximately 1.75 milligrammes per kilogram of body weight). Within ten minutes the colour became almost normal and the extremities became warm. The child improved so rapidly that she was sent home the same day. No blood was taken for spectroscopic examination.

Discussion.

Ætiology.

Methæmoglobinæmia or, more accurately, methæmoglobincythæmia (Fairley, 1941) is characterized by intense cyanosis due to the alteration of intracorporeal hæmoglobin to methæmoglobin, and also to sulphæmoglobin in many cases (Healy, 1932; Wendel, 1939). Various poisons activate the oxidation of the ferrous (Fe^{++}) to the ferric (Fe^{+++}) state in the iron porphyrin compound hæme of hæmoglobin, forming methæmoglobin. These poisons may also catalyse the combination of small amounts of sulphur with hæmoglobin forming sulphæmoglobin, the sulphur being absorbed from the large bowel, especially during constipation (Healy, 1932). The quantity of poison necessary to activate these changes to a degree sufficient to cause intense cyanosis is often surprisingly small (Case VII). Hæmolysis may occur, but usually the abnormal pigments are confined to the erythrocytes and the serum is normal in colour.

The list of poisonous substances which may cause formation of these abnormal pigments is formidable, and includes aniline compounds, phenacetin, acetanilid, sulphonamides, toluene derivatives, nitrobenzene, phenylhydrazine, sulphonal, glyceryl trinitrate, amyl nitrite, ethyl nitrite, octyl nitrite, ammonium nitrate, sodium nitrite, bismuth subnitrate (Wallace, 1947), and potassium chlorate (Walliker

and Baxter, 1949). As most of these compounds are therapeutic agents, small children, by gaining access to them, may become poisoned. However, most frequently methæmoglobinæmia in childhood is a result of poisoning by common household substances. These include furniture polish (containing nitrobenzene), marking ink, shoe dyes, crayons (the red, orange, yellow and violet variety containing paranitraniline—Jones and Brieger, 1947), perfumes and flavouring essences (Walliker and Baxter, 1949). In America, well water containing nitrates from the soil, with subsequent reduction to nitrites by intestinal flora, has been frequently described as causing methæmoglobinæmia in artificially fed infants (Ferrant, 1946; Faucett and Miller, 1946).

Clinical Features.

The outstanding feature is an intense, peculiarly grey cyanosis, which usually develops within one to two hours of ingestion of the poison and progresses rapidly until the skin and mucous membranes become almost black in colour. In mild cases there is no distress, the child is fully conscious, and there is no evidence of peripheral circulatory failure; but in the more severe cases there is sufficient inactivation of hæmoglobin to result in considerable anoxæmia. This latter group of patients may be semiconscious, dyspnoic and in a state of pronounced circulatory failure, so that death may occur rapidly unless immediate treatment is given. The lack of distress, despite pronounced cyanosis in some patients, is due to the relatively small amounts of abnormal pigments which are necessary to produce clinical cyanosis. It is stated that cyanosis is detectable clinically with three grammes per centum of methæmoglobin (Walliker and Baxter, 1949), as contrasted with five grammes per centum of reduced hæmoglobin necessary to produce cyanosis. With severe poisoning more than 60% of the available hæmoglobin may be inactivated (Faucett and Miller, 1946), and in addition there is a "shift to the left" of the oxygen saturation curve of the remainder of the functioning hæmoglobin, so that liberation of oxygen to the tissues is decreased (Darling and Roughton, 1942). Oxygen carriage may also be diminished because of inactivation of cytochrome. The severe anoxia resulting from the combination of these factors, if poisoning is severe, endangers life.

Diagnosis.

The development within a few hours of deep cyanosis which is unexplained by any cardiac, pulmonary or intracranial abnormality should at once suggest the diagnosis of methæmoglobinæmia. The history of ingestion of one of these poisons in the past few hours makes the diagnosis almost certain.

The blood is a dark chocolate colour and is so typical of this condition that spectroscopic examination is not necessary before treatment is commenced. In cases in which the pigment is predominantly sulphæmoglobin, the colour is described as being lavender or mauve (Healy, 1932). Spectroscopic examination of a sample of fresh blood will confirm the presence of methæmoglobin or sulphæmoglobin. The examination must be made immediately, as there is a rapid conversion to oxyhæmoglobin on exposure to air. If there is any delay in spectroscopic examination, the blood must be oxalated and stored under oil in a refrigerator (Wallace, 1947). There may be some difficulty in differentiating between the adjoining absorption bands of methæmoglobin and sulphæmoglobin with a pocket spectroscope. The addition of concentrated ammonium sulphide and 1% potassium cyanide solution to the specimen of oxalated blood will reduce methæmoglobin to hæmoglobin, but leave sulphæmoglobin unaltered. Occasionally there may be an accompanying hæmolytic anæmia if the poisonous substance is also a hæmolysin.

Treatment.

Although spontaneous recovery may occur, methylene blue (methyl thionine chloride) is a specific antidote for methæmoglobinæmia and is so rapidly effective that, in

the more severe cases, treatment should be given before the stomach is washed out.

Methylene blue is administered intravenously, the recommended dose being two milligrammes per kilogram of body weight for infants, 1.5 milligrammes per kilogram of body weight for older children, and 1.0 milligramme per kilogram of body weight for adults, in a 1% sterile aqueous solution (Wallace, 1947). With this treatment cyanosis usually diminishes within ten to fifteen minutes, and is often difficult to detect in one to two hours. In less severe cases the child may be given methylene blue orally. This is less effective and the dose required is greater, 10 to 20 milligrammes per kilogram of body weight being necessary. The cyanosis may take several hours to disappear (Wendel, 1939; Wallace, 1947).

Wendel (1939) attributes the effect of methylene blue to the reducing action of its leuco-form into which methylene blue is converted by enzyme systems in the tissues and erythrocytes. The leuco-form converts methæmoglobin to hæmoglobin, and itself is reconverted to methylene blue, and so is available for further use.

The use of ascorbic acid is not recommended in cases of methæmoglobinæmia from poisoning, as its antidotal action is neither rapid nor complete, and death may occur before it is effective (Walliker and Baxter, 1949; Wallace, 1947). Ascorbic acid finds its place in the treatment of the chronic and less severe familial idiopathic type of methæmoglobinæmia, in which it can be used orally in maintenance doses for long periods of time.

It is customary to administer oxygen to patients with methæmoglobinæmia, although it is of little use, and the rapid improvement with methylene blue administered intravenously soon makes its use unnecessary.

Conclusions.

1. Methæmoglobinæmia from poisoning is not uncommon in small children in Melbourne, eight patients having been treated during the past three years and eight months.
2. Although spontaneous recovery may occur, death from anoxia may ensue in the more severe cases unless specific treatment is given immediately.
3. Methylene blue given intravenously in a sterile aqueous solution is a specific, effective antidote, rapidly changing methæmoglobin to oxyhæmoglobin.

Acknowledgement.

I wish to thank members of the honorary medical staff of the Children's Hospital, Melbourne, for permission to publish the clinical histories of these children.

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Reports of Cases.

A FURTHER CASE OF SNAKE-BITE BY A TAIPAN ENDING FATALLY.

By KEITH M. BENN, M.B., B.S.,
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KELLAWAY AND WILLIAMS (1929) published experimental evidence that the venom of the taipan (*Oxyuranus scutellatus*) was predominantly neurotoxic. This point is again referred to by Kellaway (1942), who made this further statement: "In animals poisoned by neurotoxic venoms 'starting movements' are observed in the late stages of poisoning. These convulsive movements are probably central and may be caused by low-grade asphyxia or directly by the action of the venom."

The similarity of the neurotoxin of the taipan to that of the tiger snake (*Notechis scutatus*) was suggested by Kellaway (1929) when he demonstrated cross-immunization to taipan venom from tiger snake antivenine.

Reference to previous cases of taipan bite, described in the literature, shows much unreliability, as in many of the cases neither was the snake clearly seen and identified nor were the clinical notes always complete enough to allow conclusions to be drawn as to the effect of the venom.

In one of the cases recorded by Flecker (1940) a permanent loss of smell and taste resulted—a feature not unusual with other neurotoxins. In the same account, two fatal cases are described (the snake not having been positively identified); one case is characterized by respiratory failure, the other by immediate onset of convulsions.

Flecker (1944) described a further two fatal cases, one of which was not identified as a taipan bite. Both cases, again, were characterized by convulsions.

Further reference to a case described by Reid and Flecker (1950), in which the snake was positively identified as a taipan, shows again all the clinical signs of a neurotoxin. In this case there was the picture of peripheral circulatory failure—a feature which, although common with the cytolytic toxins of black snake and copperhead snake venoms (Kellaway, 1942), is not expected with the taipan. Reference to the clinical details of this case shows that the patient lost a considerable quantity of blood with the scarification, his hæmoglobin value being 40% seven days after the bite.

The present account deals with a case of snake-bite; the snake was captured alive and was identified positively as a taipan.

Clinical Record.

The victim was K.B., aged twenty years, of slight physique, who described himself as "an amateur snake collector". It is stated by relatives that he had been bitten by several snakes previously.

The patient arrived at Cairns during the early part of July, 1950, fully determined to secure a taipan alive. After several unsuccessful journeys inland, in which he collected many other snakes, including non-venomous varieties, he returned to Cairns. On July 26 he received word that a taipan had been killed under a home at Anderson Street, on the outskirts of the city. He immediately made known his determination to seek out the mate of this snake the next morning. In spite of warnings from local residents, he set off, searching an area of rubbish dump off Anderson Street. From details related by the victim to Mr. S. E. Stephens, of Edgehill, it is possible to reconstruct the circumstances of the capture. Approaching a pile of rubbish, he came upon the taipan coiled up in the sun. Quickly putting out his foot in order to immobilize the reptile, he took hold of it by the neck with the left hand. Allowing the reptile to coil around his body and holding the tail in his right hand he proceeded along the bush

track a distance of about one-half to one mile, until he reached the main road to Edgehill. Here he hailed a truck, and still holding the reptile in this manner, climbed into the cabin beside the driver, asking to be driven to Mr. Stephens to have the snake identified.

Upon arrival at the residence the reptile was immediately identified as a taipan. As he loosened his grip for a moment to secure a better hold, the reptile broke loose, dropped to the ground, and in quick succession struck at his boot, his trouser cuff and then successfully at his left hand. The snake was then secured, and a tourniquet was applied to his left arm. This was at 10.30 a.m.

Upon his arrival at Cairns Base Hospital at 11 a.m., the patient gave the general impression of bravado and excitement, showing greater interest in the welfare and comfort of the reptile than himself. When asked why he had not scarified the wound, he answered that in his opinion scarification "wasn't worth the trouble". He stated that he was not worried about himself, as he believed that snake victims died from fright more than from the effects of the poison.

Examination of the patient's left hand revealed two puncture wounds on the left thenar eminence, with a double row of puncture wounds running laterally. The arm had a double tourniquet applied above the elbow. No radial pulse was detected. General examination revealed no abnormality. The pulse rate was 96 per minute.

Scarification of the wound was not attempted, owing to the half-hour delay; 4500 units of tiger snake antivenine were given by the intravenous route. As the patient said that he was a hay fever subject, "Anthisan" (0.1 gramme) was given three times per day. The tourniquet was removed every ten minutes for a period of ten seconds until 12.15 p.m., when it was dispensed with completely.

At 3 p.m. the patient complained of blurred vision. He had vomited yellowish fluid three times and developed a severe headache straight after. Examination revealed a slight ptosis and weakness of both masseter muscles. His pulse rate was 120 per minute, the pulse being of good volume, and his body temperature, taken by mouth, was 98.6° F. The skin felt clammy. The affected hand was now red and swollen.

A hypodermic injection of five minims of one in 1000 adrenaline solution and five minims of "Neosynephrin" was given. "Anacardone" (two millilitres) was also given by intramuscular injection. At 7 p.m. the patient had vomited yellowish fluid twice. Examination revealed extension of the paralytic process; slight internal strabismus was now present and ptosis was extreme. He was unable to move his tongue appreciably; his mouth gaped and its floor sagged under the effects of gravity. As he was unable to swallow, it was necessary to aspirate saliva continuously. The patient was unable to phonate, and had to resort to pencil and paper. The sterno-mastoid muscles were weak upon both sides and some upper intercostal paralysis was noted. The pulse was full and the rate was 120 per minute. The body temperature was 97.2° F. A further 3000 units of tiger snake antivenine were given intramuscularly. *Mistura Potassii Citratis*, half an ounce, was given four-hourly in addition to five milligrammes of picrotoxin intramuscularly.

Examination of the patient at 8 p.m. revealed almost complete loss of intercostal breathing, complete facial paralysis and some weakening of upper and lower limb musculature with corresponding loss of tendon reflexes.

Shortly before the patient was transferred to the respirator room a further 4500 units of tiger snake antivenine and one millilitre of "Anacardone" were given intramuscularly.

At 8.25 p.m. respiratory distress was apparent; yet when the patient was placed in the artificial respirator he fought strenuously against the artificial rhythm. This necessitated his removal, and dependence upon the administration of oxygen and posturing into Fowler's position. When this was done the patient showed little respiratory distress.

When he was examined at 9 p.m., the patient's condition was much the same. A hypodermic injection of atropine (1/100 grain) was successful in reducing salivary secretion.

During the night the patient slept normally and appeared to be capable of sufficient respiratory exchange.

Slight cyanosis was reported at 9 a.m. the next day. The patient was restless and his temperature was 96.0° F. The oxygen flow was increased to four litres per minute with a good response. The administration of dextrose solution (5%) was started by the intravenous route at the rate of 80 drops per minute. However, at 9.30 a.m. less than 500 millilitres had been given when the patient became restless and dragged the needle out. Immediately after this (10.50 a.m.) he had a rigor, and his pulse was rapid and only just perceptible. One millilitre of pitressin and five milligrammes of "Neosynephrin" were given immediately. Some improvement was noted by 11.25 a.m.; ventilation was deeper, and the patient was conscious. The radial pulse was slower and fuller.

At 12.30 p.m. the patient became restless, respiratory movements became shallow and moderate cyanosis developed. The oxygen administration from a standard "B.L.M." mask was increased, and two millilitres of "Anacardone" were given intramuscularly. However, cyanosis became intense and respiratory movements disappeared; but the pulse rate did not increase and the pulse was full. Manual artificial respiration was instituted preparatory to insertion of the patient into the respirator. No ventilation occurred when he was put into the respirator. As it was thought that a mucous clot might have blocked the airway, the patient was then subjected to direct laryngoscopy. The chords were seen to be clear and only very little mucus was present. A McGill's tube was inserted to ensure an airway. Artificial respiration had continued in the meantime.

At 1.20 p.m. one millilitre of "Anacardone" was given intramuscularly. The patient remained cyanotic and cold, although respiratory exchange was adequate.

At 1.30 the pulse failed and no signs of life were detected.

At the post-mortem examination it was noted that around the two puncture wounds was a quarter-inch area of dry, black tissue resembling dry gangrene.

Conclusion.

A case of bite from *Oxyuranus scutellatus* ending fatally is described.

The patient probably received a small dose of venom, as is suggested by the late onset of symptoms and the absence of convulsions.

One was unable to detect any amelioration of symptoms with the use of 12,000 units of tiger snake antivenine. This is surprising in view of the findings of Kellaway (1929) and of Flecker and Reid (1949).

This case illustrates the fact that preconceived ideas on the part of the patient in respect to first aid may seriously affect his progress.

Indicative of the effect of a neurotoxin, the symptoms in this case are predominantly those of slowly developing flaccid paralysis and bulbar palsy.

The use of drugs designed to stimulate the respiratory centre had no particular effect on the paralysis of this patient. This is significant, perhaps, in face of Kellaway's statement in respect to the neurotoxins of Australian snakes. Kellaway states that apart from central effects, "... the venoms have a curari-like action on motor endings, and a further direct action upon muscle itself. To this curari-like action the phrenic end plates in the diaphragm are particularly sensitive; and partial curarization of the diaphragm plays an important part in the failure of respiration which is the commonest cause of death after the bites of these snakes".

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AUREOMYCIN IN INTRACTABLE NON-SPECIFIC URETHRITIS.

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In the present communication, the effects of aureomycin treatment in a selected series of cases of intractable non-specific urethritis are described. In all the six cases presented, the patient had been treated by other means without cure. Owing to the limited quantity of the drug available, it has not been possible to try the effect of aureomycin as initial treatment. In all cases the drug was given by mouth in capsule form.

Case I.

An unmarried man, aged twenty-five years, first reported with a urethral discharge on December 6, 1948. The discharge had been present since then until May, 1949, except for occasional intervals of a few days. He had been treated with sulphonamide drugs, penicillin, "Novarsenobillon" and irrigations. No gonococci were ever found.

On May 18, 1949, the patient was admitted to Flinders Naval Hospital. On examination a white milky discharge was found. Examination of a urethral smear revealed pus and epithelial cells, Gram-positive cocci and diphtheroids. The blood failed to react to the Wassermann test or to the gonococcal complement fixation test. He was treated with daily prostatic massage, penicillin (100,000 units *statim*, 50,000 units every four hours) and a course of sulphathiazole (20 grammes). After this the following measures were employed: protein shock therapy, specific vaccine therapy, irrigations, complete rest and sunshine, and penicillin, 500,000 units every four hours (total dosage 11,700,000 units), after penicillin sensitivity tests had revealed that the organisms in the discharge were susceptible to only such high concentrations as would be produced in the blood-stream by such doses. A streptomycin sensitivity test showed that the organisms were not sensitive to this drug.

On September 14 a course of aureomycin was begun; 250 milligramme capsules were administered to the patient until a total of 2000 milligrammes had been given in forty-eight hours. The discharge ceased. Examination of a prostatic smear revealed occasional pus cells and Gram-positive cocci. Five days later the discharge recommenced. On September 29 a further course of 2000 milligrammes of aureomycin was given. Only a slight watery discharge remained, which contained pus and epithelial cells, but no organisms. However, a further course of 2000 milligrammes of aureomycin was given, commencing on September 26, and the discharge completely cleared up. The patient was kept under observation for several weeks, but there was no recurrence of the discharge.

Comment.

This patient was under treatment for nine months with various forms of treatment. Cure was effected within two weeks with aureomycin.

Case II.

A man, aged twenty-three years, who had been married for two weeks, was admitted to Flinders Naval Hospital on October 4, 1949. On routine examination albuminuria was discovered. The patient gave a history of non-specific urethritis in 1946 and of gonorrhoea in 1947. Since 1947 he had had an occasional urethral discharge. Since his marriage the discharge had become more frequent, and on his admission to hospital it was present every day. Examination of a urethral smear revealed pus and epithelial cells, extracellular Gram-positive diplococci, Gram-negative bacilli, Gram-positive cocci and diphtheroids. Examination of a prostatic smear revealed similar appearances.

A course of penicillin was given—100,000 units *statim* and 50,000 units every four hours to a total of 1,800,000 units. The discharge remained. Repeated examination of urethral and prostatic smears revealed pus and epithelial cells, Gram-positive cocci and diphtheroids; no Gram-positive organisms were seen. He was treated with *Mistura Potassii Citratis et Hyoscyami* for four days with no improvement.

On October 21 a course of aureomycin therapy was begun, 2000 milligrammes being given over a period of forty-eight hours. The discharge dried up within the first twenty-four hours. On prostatic massage no fluid was obtained.

Comment.

This patient was under treatment for seventeen days with various remedies, without success. Cure resulted within twenty-four hours of the exhibition of aureomycin.

Case III.

An unmarried man, aged twenty-seven years, on September 5, 1949, complained of urethral discharge of one day's duration, and of irritation of the *glans penis*. Examination of a urethral smear revealed pus, numerous Gram-positive cocci, diphtheroids and bacilli. The blood did not react to the Wassermann test. He was treated with penicillin in oil and beeswax, 250,000 units being given daily for three days, concurrently with a course of sulphathiazole therapy, two grammes being given *statim* and one gramme every four hours to a total of 20 grammes. The discharge continued after treatment; examination of a urethral smear revealed a few pus and epithelial cells, but no organisms. Sterile milk injections were given daily for three days, with some rise in temperature. The discharge continued, but appeared more watery. Examination of a prostatic smear revealed occasional pus and epithelial cells, but no organisms.

On September 19 a course of aureomycin therapy was begun, 250 milligrammes (one capsule) being given every six hours for forty-eight hours to a total of 2000 milligrammes. The discharge disappeared completely.

Comment.

This patient was treated by routine methods for two weeks, with no improvement. Cure resulted within forty-eight hours of the exhibition of aureomycin.

Case IV.

An unmarried man, aged twenty years, presented on August 24, 1949, with a yellowish urethral discharge; he said that the last sexual intercourse had taken place ten days previously. Examination of a urethral smear revealed debris only. On examination of the patient, no discharge was seen. His blood failed to react to the Wassermann test. He was treated with penicillin in oil and beeswax, 250,000 units being given daily for three days, concurrently with a course of sulphathiazole therapy (20 grammes). On the completion of this treatment a slight clear discharge was present. Examination of a urethral smear revealed debris, and numerous pus and epithelial cells, but no microorganisms. A course of three sterile milk injections was given, with no improvement. The urethral discharge continued. It was painless, and there was no increased frequency of micturition. The discharge was worse in the mornings, when it was of a milky colour; it was clear for the rest of the day.

On September 19 a course of aureomycin therapy was begun, 2000 milligrammes being given over a period of forty-eight hours. No improvement in his condition occurred. He was treated with *Mistura Potassii Citratis et Hyoscyami* (0.5 fluid ounce three times a day). After two weeks the discharge cleared up. Examination of a prostatic smear revealed debris only. Four days later the discharge recommenced; it was clear. Examination of a urethral smear revealed occasional pus and epithelial cells; examination of a prostatic smear revealed scanty pus cells, occasional Gram-positive cocci and diphtheroids.

On October 24 a further course of aureomycin was begun, 250 milligrammes being given every six hours for forty-eight hours. The discharge diminished over a period of a week and was then absent. On November 7 examination of a prostatic smear revealed a few pus cells and epithelial cells and debris, but no microorganisms.

Comment.

This patient was unsuccessfully treated for four weeks with various remedies. In this case rapid cure did not follow aureomycin therapy, although success was achieved after a second course of the drug. An interval of six weeks elapsed between the first course of aureomycin therapy and complete cure.

Case V.

An unmarried man, aged nineteen years, on October 10, 1949, complained of a urethral discharge present for twenty-four hours. He had a history of exposure to infection two weeks before. On examination of the patient, a profuse yellow discharge was present. Examination of a urethral smear revealed numerous pus and epithelial cells, debris, numerous Gram-positive cocci and diphtheroids. He was treated with 250,000 units of penicillin in oil and beeswax given daily for three days, concurrently with a course of sulphathiazole (20 grammes). The discharge continued. Examination of a urethral smear revealed numerous pus and epithelial cells, but no micro-organisms. He was treated with *Mistura Potassii Citratis et Hyoscyami*, 0.5 fluid ounce three times a day for seven days. The discharge continued, but became more watery in consistency. Examination of a urethral smear revealed pus and numerous Gram-positive cocci and diphtheroids.

On October 24 a course of aureomycin therapy was begun, 2000 milligrammes being given over forty-eight hours. The discharge cleared up immediately. Examination of a prostatic smear revealed debris, a few pus and epithelial cells and an occasional Gram-positive coccus. No further discharge occurred.

Comment.

This patient did not respond to fourteen days' treatment with various drugs. Cure resulted within forty-eight hours of the exhibition of aureomycin.

Case VI.

A single man, aged twenty-one years, on October 18, 1949, presented at Flinders Naval Hospital with a urethral discharge, present for four months. The records showed that he had presented with acute gonorrhoea, confirmed by laboratory tests, but despite treatment with penicillin, sulphonamide drugs, irrigations and prostatic massage, the discharge continued. On examination of the patient, a slight milky discharge was present; no abnormality was detected on rectal examination. Examination of a urethral smear revealed debris and pus cells, but no micro-organisms. The blood failed to react to the Wassermann test. He was treated with penicillin in oil and beeswax, 250,000 units being given daily for three days concurrently with a course of sulphathiazole therapy (20 grammes). No improvement occurred; the findings on examination of a urethral smear remained the same. He was then treated with *Mistura Potassii Citratis et Hyoscyami*, 0.5 fluid ounce three times a day for twelve days, with no improvement.

On November 11 a course of aureomycin therapy was begun, 250 milligrammes being given every six hours for forty-eight hours (total, 2000 milligrammes). The discharge ceased within a few days, slight moisture of the urethral meatus remaining in the mornings only. Examination of a prostatic smear revealed debris only.

Comment.

This patient was under treatment for five months without success. Under aureomycin treatment cure resulted in about five days.

Summary and Conclusions.

Six patients suffering from non-specific urethritis, who had been unsuccessfully treated with penicillin and other measures, have been treated by the oral administration of aureomycin.

All patients responded to treatment. Two patients relapsed, but both reacted favourably to further treatment.

There were no failures.

Reviews.

A MANUAL OF CARDIOLOGY.

THE second edition of Dry's "Manual of Cardiology"¹ has been published in order "to present the newer concepts of heart disease, and to discard material which is no longer accurate or helpful".

The whole book has been revised, and a surprising amount of material has been condensed into its 350 pages. The clinical approach has been kept to the fore throughout, and an excellent feature is the clear reproduction of radiographs and electrocardiograms which have been well selected. These are shown together with the descriptions of the clinical features of the various heart lesions. Although the matter is necessarily condensed, the book does not suffer thereby, and is easily followed, except perhaps in Chapter VI on the disturbances of rhythm and conduction. Here the student might become fogged if he had had no previous instruction in this subject.

Where necessary, brief but helpful reference is made to the physiology and pathology of symptoms and signs.

In the chapter on congenital heart disease, ten pages are devoted to the embryology of the human heart, and this greatly assists in the understanding of the various congenital defects. The signs and diagnostic features of defects are particularly clear.

Another good section is that on *cor pulmonale*. The cardiac neuroses are well covered, and the dangers of iatrogenic disease rightly stressed.

Rare diseases receive mention, such as disseminated lupus erythematosus, including Libman-Saks endocarditis, periarthritis nodosa, as well as tumours of the heart, and the effects of certain metabolic states, anaesthesia and pregnancy on the heart.

Sound advice is given in dealing with the cardiac patient, with due emphasis on the study of the individual.

The arrangement of the text follows an orderly sequence, and the book is obviously written by an experienced and wise physician. Unipolar leads receive adequate mention, and their evaluation agrees with that usually accepted. A few good references are given at the end of each chapter—nearly all these are of American origin—and there is a good index.

Nothing of importance has been omitted from this book, apart from very specialized manoeuvres, such as catheterization of the heart, which would be out of place in a manual devoted to the general practitioner.

DISORDERS OF THE BLOOD.

WHAT are the qualities that go to make a great text-book? Reliability first of all, then wisdom, built on the three pillars of experience, learning and judgement. Next comes skill in the art of teaching, and of giving good counsel tinged with prudence and benignity. So much for the soul of the book; as to its body, that must be well set up and knit together, with good clear print and adequate well-chosen illustrations. An excellent example of such a book is "Disorders of the Blood" by L. E. H. Whitby and C. J. C. Britton, first published in 1935 and now in its sixth edition.² The preparation of a new edition of a text-book of haematology is a formidable task, in view of the rapid advance of knowledge in this field. There is, as the authors observe, an almost boundless literature to survey. They modestly "trust that the present edition sets forth a fair appraisal of the subject to the end of 1949". It does indeed do so; the revision has been thorough and the book has gained in vitality and breadth of outlook. Nomenclature follows the Ehrlich tradition and the accepted English usage. "The specific terms proerythroblast and normoblast (early, intermediate and late) are used for the cells involved

¹ "A Manual of Cardiology", by Thomas J. Dry, M.A., M.B., Ch.B., M.S. in Medicine; Second Edition; 1950. Philadelphia and London: W. B. Saunders Company. Melbourne: W. Ramsay (Surgical) Proprietary, Limited. 7½" x 5½", pp. 368, with 97 illustrations. Price: 47s. 6d.

² "Disorders of the Blood: Diagnosis, Pathology, Treatment, Technique", by Sir Lionel E. H. Whitby, C.V.O., M.C., M.A., M.D. (Cantab.), F.R.C.P. (Lond.), D.P.H., and C. J. C. Britton, M.D. (New Zealand), D.P.H.; Sixth Edition; 1950. London: J. and A. Churchill, Limited. 8½" x 6", pp. 782, with 106 illustrations, 12 of them in colour. Price: 42s.

in normal blood production and simple hyperplasia: the term erythroblast is used comprehensively to include all nucleated red cells, normal or pathological: whilst the word megaloblast is restricted to the series of cells characteristic of pernicious anaemia." Chapters VI and VII on the causes and treatment of anaemia include accounts of vitamin B_{12} and of folic acid; and also—a much more important matter—of the haemopoietic value of foodstuffs. The authors stress the work of Davidson, who found a definite decrease in the incidence of anaemia since the introduction of national wheatmeal bread which increased the average daily iron intake of certain groups in the United Kingdom from 14 to 19 milligrammes. There is much new material in the chapter on "The Leukaemias (Leucoses)" and the section on myelomatosis has been brought up to date. Chapter XXI on "Haemagglutination and Blood Groups" deals very well with the ramifications of this complicated subject; in the account of the Rhesus factor the fundamental discovery of Wiener and Peters receives due recognition.

Three of the four new colour plates are taken from photomicrographs; this would be all to the good if only the plates were clearer. As it is, they are too dark and the detail is poor; nucleoli cannot be distinguished. The older colour plates are much more useful; fortunately these have been retained. The summaries at the ends of chapters seem redundant. With good type and subheadings it is quite simple to gather the general trend of a chapter. The advanced student will not need a summary and the book is so readable that even a novice will prefer the text of a chapter to the rather elementary abstract. There are some surprising omissions from the chapter on technique; for instance the improved Neubauer ruling is not mentioned, nor the Fuchs Rosenthal counting chamber. Hayem's solution is one of the two recommended for counting red cells, although in the next sentence mention is made of the fact that it tends to clump the red cells in Hodgkin's disease, multiple myeloma, malignant disease, kala-azar, cirrhosis of the liver, nephritis and certain infections. These are minor criticisms, however; the book as a whole maintains its place as one of the best text-books on haematology.

A TEXT-BOOK OF SURGERY.

THE fifth edition of Professor C. F. W. Illingworth's "A Short Textbook of Surgery" can be recommended as an excellent text-book for students.¹ In general, its exposition of basic principles is sound. It gives essentials for undergraduates in short simple fashion, leaving out those details which may reasonably be left for post-graduate study. It thus tempers justice with mercy for the harassed undergraduate.

As compared with the fourth edition there is a welcome improvement in the management of acute peritonitis and perforated appendix. Old evacuant methods have been discarded.

Some minor errors noted in our review of the fourth edition still appear in the fifth. And also, "*débridement*" and "excision" are wrongly given as synonymous terms in wound surgery. Gastrostaxis is spelt "gastrorrhaxis". The importance of sympathetic nerve block in *phlegmasia alba dolens* and in other forms of acute thrombo-phlebitis, is not mentioned.

TEXT-BOOK OF PÆDIATRICS.

THE fifth edition of the "Mitchell-Nelson Textbook of Pediatrics", edited by Waldo E. Nelson with the aid of sixty-three contributors, is a noble volume in every sense of the word.² It deserves to be prescribed as a reference book in all medical schools where the English language is used.

The large introductory section on the care and evaluation of well children is a charming series of essays on hygiene, prophylaxis and all the facets of development and nutrition. It covers the useful extensive field of paediatric knowledge

and interests outside that of actual ill health and the many handicapping aberrations which are usually brought to the notice of physicians and surgeons.

This is followed by another large and informative section on general factors in the care of sick children such as the diagnosis and management of disturbances of fluid and electrolyte equilibrium, parenteral fluid therapy, technical procedures, drug therapy, anaesthesia and convalescent care.

We then find a masterly exposition of the difficulties encountered because of congenital malformations, inborn errors of metabolism, prematurity and immaturity in the neonatal period. Thereafter the arrangement is along conventional text-book lines, but the contents of each section are competently marshalled and lucidly presented; it is hard to find a dull spot anywhere because of the high literary standard which has been attained. As one would wish, the main emphasis falls on the commoner ailments, but the connoisseur will find many a rarity the description of which will give him pleasure; the refinements of sodoku and equine encephalomyelitis accompanied by comprehensive references to the literature exemplify the exotic nature of some of the tit-bits.

Australian readers will be disappointed with the article on acrodynia and many will be sceptical of the right of BAL therapy to prominence or the role of mercury in the aetiology of pink disease.

Recently acquired knowledge of viral activities and anti-biotic remedies has been skilfully woven into the textual matter throughout in authoritative and commendably cautious statements; where uncertainty exists the material has been loosely inserted in small sections which are not definitive or final.

All those who have laboured to produce this book are to be congratulated heartily, and the W. B. Saunders Company, of Philadelphia and London, have every reason to be proud of the publication.

NEUROLOGICAL DIAGNOSIS.

IN the fourth edition of his excellent little book on neurological diagnosis, Professor Glen Spurling has completely revised the chapter on the cerebellum and has added a very valuable section on the hypothalamus to the chapter on the cerebrum.³ A useful glossary of neurological terms has also been placed at the beginning, so that the student can become familiar with their meaning, before they are encountered in the text.

The general form of the book has not been altered, and it still achieves its original objective of presenting a simple account of the principles of neurological and neurosurgical diagnosis.

A standardized method of history-taking and of a neurological examination is given in the first chapter and in Appendix 1, and conforms to those systems in use in many neurosurgical clinics. Special stress is laid on the importance of writing down at the time a summary of the positive subjective and objective findings along with the clinical impression of the disease or diseases suggested by them.

In the next chapter, the neuro-anatomy, neuro-physiology, and the clinical examination of each cranial nerve are presented in a very graphic manner. The optic nerves are particularly fully dealt with on these lines, although some confusion arises on page 22, where the text refers to the left optic radiation, whilst the reference in "Fig. 6D" refers to the left optic tract. The nuclei, tracts and distribution of the branches of the fifth nerve are also clearly depicted, but in the description of a classical nuclear or infranuclear lesion of the seventh nerve, no reference has been made to it as Bell's palsy, the name by which this lesion is commonly known.

The chapters on the cerebral hemispheres and the cerebellum are simple, direct and didactic. The description of Romberg's sign is rather confusing and differs somewhat from the definition of it given in the glossary. The author maintains that if the patient sways, when standing with feet together and eyes open, the sign is a positive manifestation of a lesion of the posterior lobe of the cerebellum. It is then intensified by the closing of the eyes. Whereas, by British neurologists, the sign is regarded as present only

¹"A Short Textbook of Surgery", by C. F. W. Illingworth, C.B.E., M.D., Ch.M., F.R.C.S. (Edinburgh): Fifth Edition; 1950. London: J. and A. Churchill, Limited. 9½" x 6½", pp. 684, with many illustrations. Price: 30s.

²"Mitchell-Nelson Textbook of Pediatrics", edited by Waldo E. Nelson, M.D.; 1950. Philadelphia and London: W. B. Saunders Company. Melbourne: W. Ramsay (Surgical) Proprietary, Limited. 10" x 7", pp. 1682, with 426 illustrations, some of them coloured. Price: £5 18s. 9d.

³"Practical Neurological Diagnosis: With Special Reference to the Problems of Neurosurgery", by R. Glen Spurling, M.D.; 1950. Illinois: Charles C. Thomas (Publisher). Oxford: Blackwell Scientific Publications, Limited. 9" x 6", pp. 288, with 101 illustrations. Price: 37s. 6d.

when swaying occurs with the eyes closed, and then it is a sign of dysfunction of the posterior columns, as in *tabel dorsalis*.

The chapters on the spinal cord and the reflexes are simple and adequate, but some minor points need more careful revision. For instance, loss of painful sensation is better called analgesia than anaesthesia; and on page 139, the muscle group innervated by C8 motor root should be the flexors of the wrist and fingers and not the extensors which are referred to in the line above as innervated by C7 root. Also the L5 motor root is usually regarded as supplying the glutei, peronei and anterior tibial group of muscles, along with the hamstrings (in part); whilst the S1 root supplies the remainder of the hamstrings and the muscles of the calf. The small muscles of the foot are supplied by S1 and S2 roots.

In another chapter, the cerebro-spinal fluid is discussed very fully from all aspects, the discussion beginning with formation and circulation, and concluding with composition and the significance of changes in the fluid. These changes are set out in detail in two complete tables. The first table gives the important cerebro-spinal fluid findings in health and disease; and the second gives the findings in the various types of subarachnoid block. The technique of lumbar puncture is well described and illustrated along with the dynamics of the cerebro-spinal fluid and the value of manometry.

The concluding chapter is devoted to radiological diagnosis of cranial, intracranial and spinal lesions by plain skiagrams, ventriculography, encephalography and myelography, normal and various typical pathological conditions being shown. The various techniques are described and the films have been excellently reproduced. With the advent of electroencephalography, air or gas studies are now usually referred to as pneumoencephalography; and since arteriography of both the carotid and vertebral arterial systems has come to occupy such an important and popular place in the investigation of lesions of the brain and cranial cavity, it is felt that these techniques should be mentioned and a few characteristic angiograms should be included in a work of this nature. Indeed, the same might be said of electroencephalography also.

The book is well printed on art paper, its general presentation is well up to the high standard now expected of a Thomas publication, and the illustrations have been well and appropriately chosen and reproduced. It should be read by all students, house physicians and surgeons, and busy practitioners who desire to become proficient in neurological diagnosis and elementary neurosurgical procedures.

Books Received.

[The mention of a book in this column does not imply that no review will appear in a subsequent issue.]

"Pediatric X-Ray Diagnosis: A Textbook for Students and Practitioners of Pediatrics, Surgery and Radiology", by John Caffey, A.B., M.D.; Second Edition; 1950. Chicago: The Year Book Publishers, Incorporated. 10" x 7", pp. 892, with many illustrations. Price: \$22.50.

The first edition was published in 1945.

"The 1950 Year Book of Radiology (June, 1949-June, 1950)": Diagnosis—edited by F. J. Hodges, M.D., and J. F. Holt, M.D.; Therapeutics—edited by I. Lampe, M.D., and R. S. MacIntyre, M.D.; 1950. Chicago: The Year Book Publishers, Incorporated. 9" x 6", pp. 484, with many illustrations. Price: \$6.75.

One of the Practical Medicine Series of Year Books.

"Big Game Fishing", by A. B. K. Watkins; 1950. London: Geoffrey Bles, Limited. 8½" x 5½", pp. 230, with many illustrations. Price: 16s.

The author, an oto-laryngologist, describes his experiences in one of the most fascinating of sports.

"Toxæmias of Pregnancy: Human and Veterinary: A Ciba Foundation Symposium", edited by John Hammond, M.A., D.Sc., F.R.S., F. J. Browne, M.D., D.Sc., F.R.C.S., F.R.C.O.G., and G. E. W. Wolstenholme, O.B.E., M.B.; 1950. London: J. and A. Churchill, Limited. 8" x 5½", pp. 296, with 93 illustrations. Price: 21s.

A symposium comprising thirty articles.

"Serology with Lipid Antigen: With Special Reference to Kahn and Universal Reactions", by R. L. Kahn, M.S., D.Sc.; 1950. Baltimore: The Williams and Wilkins Company. Sydney: Angus and Robertson, Limited. 9" x 6", pp. 344. Price: 64s. 6d.

Devoted largely to the serology of syphilis.

"Klinische Physiologie und Pathologie", by Professor Dr. Ferdinand Hoff; 1950. Stuttgart: George Thieme Verlag. 9½" x 7", pp. 800, with 124 illustrations. Price: DM39.

The author deals with physiology, pathology and clinical medicine from the point of view of the mental and bodily unity of the patient.

"The Medical Clinics of North America"; 1950. Philadelphia and London: W. B. Saunders Company. Melbourne: W. Ramsay (Surgical) Proprietary, Limited. Boston Number. 9" x 6", pp. 348, with some illustrations. Price: £7 5s. per annum (cloth binding) and £6 per annum (paper binding).

A Boston number, comprising a symposium on specific methods of treatment in common use today. There are twenty articles; many of the authors are well-known writers.

"The Principles of Pathology", by R. A. Willis, D.Sc., M.D., F.R.C.P.; 1950. London: Butterworth and Company (Publishers), Limited. 9½" x 7", pp. 742, with many illustrations. Price: 65s.

The author aims to expound pathology from the general principles without artificial and repetitive subdivision into general and special parts.

"An Introduction to Pathology", by G. Payling Wright, D.M., F.R.C.P.; 1950. London, New York, Toronto: Longmans Green and Company. 8½" x 6", pp. 588, with many illustrations. Price: 49s. 6d.

The author lays emphasis on aetiology and disease and hopes to provide "an introductory exposition of the principles of pathology in terms of the more fundamental sciences of Biology and Physiology".

"Textbook of Physiology and Biochemistry", by George H. Bell, B.Sc., M.D. (Glasg.), F.R.F.P.S.G., F.R.S.E., J. Norman Davidson, M.D., D.Sc. (Edin.), F.R.F.P.S.G., F.R.I.C., F.R.S.E., and Harold Scarborough, M.B., Ph.D. (Edin.), F.R.C.P.E., with a foreword by Robert C. Garry, M.B., D.Sc. (Glasg.), F.R.F.P.S.G., F.R.S.E.; 1950. Edinburgh: E. and S. Livingstone, Limited. 9" x 6½", pp. 936, with many illustrations. Price: 45s.

Intended as introductory to the study of physiology and biochemistry and for the use of medical students and those of allied sciences.

"The Clinical Use of Radioactive Isotopes", by Bertram V. A. Low-Beer, M.D.; 1950. Illinois: Charles C. Thomas. Oxford: Blackwell Scientific Publications, Limited. 9" x 6", pp. 436, with many illustrations. Price: 70s.

Publication number 54 of the American Lecture Series.

"John Hunter", by S. Roodhouse Gloyne, M.D. (Leeds); 1950. Edinburgh: E. and S. Livingstone, Limited. 8½" x 6½", pp. 144, with some illustrations. Price: 15s.

"The story of John Hunter in the setting of his period."

"Radiation Therapy in the Management of Cancer of the Uterine Cervix", by Simeon T. Cantril, M.D.; 1950. Illinois: Charles C. Thomas. Oxford: Blackwell Scientific Publications, Limited. 8½" x 5½", pp. 212, with many illustrations. Price: 36s.

This is publication number 55 of the American Lecture Series.

"The Diagnosis and Treatment of Endocrine Disorders in Childhood and Adolescence", by Lawson Wilkins, M.D.; 1950. Illinois: Charles C. Thomas. Oxford: Blackwell Scientific Publications, Limited. 11" x 8½", pp. 412, with many illustrations. Price: 95s.

Intended for the clinician. One object is to emphasize the importance of differential diagnosis; another is to demonstrate some of the newer diagnostic methods.

The Medical Journal of Australia

SATURDAY, JANUARY 27, 1951.

All articles submitted for publication in this journal should be typed with double or treble spacing. Carbon copies should not be sent. Authors are requested to avoid the use of abbreviations and not to underline either words or phrases.

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Authors who are not accustomed to preparing drawings or photographic prints for reproduction are invited to seek the advice of the Editor.

THE PSYCHOPATH.

DURING the last few years a good deal has been written about what has been called the psychopathic personality and about the fact that persons manifesting it cannot be certified as insane and cannot be fitted into the conventional pigeon-holes of the psychosis and psychoneurosis classifications. These persons are in many respects the chief "problem children" of the community. Their nuisance value is enormous. Sometimes they break the law and come into the hands of the police, but it is their relatives and acquaintances who as a rule suffer most because of their waywardness. The problem presented by these people does not concern them alone—it is not only a question of what shall be done with them to lessen the immediate effect of what they do. There is a eugenic side to be considered. The importance of eugenics in relation to mental conditions was discussed in this journal last August by C. R. D. Brothers, of Hobart. But it is not to eugenics that attention will be directed in the present instance. It is intended to bring to the notice of readers a book by Dr. Hervey Cleckley,¹ Professor of Psychiatry and Neurology in the University of Georgia School of Medicine in the United States of America.

Cleckley is at considerable pains to show that a great deal of confusion surrounds the subject of the psychopathic personality; he discusses this from the historical point of view. He refers to a publication by Sydney Maughs, who in 1941 dealt with the psychopathic personality from the historical point of view. Over a hundred years ago Pinel wrote: "I thought that madness was inseparable from delirium or delusion, and I was surprised to find many maniacs who at no period gave evidence of any lesion of the understanding." Cleckley pays a tribute to such early observers as Pinel, Esquirol, Rush, Woodward, Conally and so on, who not only recorded that

serious personality disorder occurred in the absence of a "lesion of the intellect", but also were inclined to recognize it as an illness, to distinguish it from ordinary crime or depravity. The conclusions of these men, he thinks, seem far more realistic than many subsequent concepts and "distinctly superior to those that now determine the medical and legal status of the psychopath". He wonders whether the chief medico-legal decisions today are not determined almost entirely on the question of whether or not a "lesion of the intellect" can be demonstrated. As the psychoses were recognized and the psychoneuroses were distinguished from them it "became increasingly popular to put more or less anything that failed to go in these categories with the psychopath in a veritable diagnostic salad of incompatibles". When mental defectives were not distinguished from the psychopath, physical abnormalities and pathological changes were found and reported in the general group. These changes are not characteristic of the psychopathic personality. Cleckley sets out the official classification adopted in the United States for the psychopathic personality, and points out that it includes such states as schizoid disorders and sexual deviations which *per se* do not belong to the group with which he deals. The term psychopathic personality can, of course, also be applied to any psychotic patient. For the type of person about whom he writes he prefers the word psychopath, which after all is jargon. He writes: "When one psychiatrist . . . expresses to another some thought he has about the *psychopath*, it is immediately and plainly understood that he is not making reference to schizoid disorder or to sexual deviation *per se*, but to a disorder nearly all psychiatrists recognize and recognize as distinct from the heterogeneous mess of unrelated disorders with which it is officially listed."

Having discovered something of the difficulty surrounding the nature of this subject, we may turn to some of the examples given by our author. As a matter of fact he handles the subject in the reverse way—he gives detailed histories of several psychopaths and then discusses the scope of his subject and its difficulties. This may be the better way of instruction. It should be stated at once that psychiatrists and many general practitioners of medicine will have little difficulty in matching persons in Cleckley's gallery of misfits with others of their own experience. Cleckley's pen pictures (he has thirteen chapters each of which deals with one individual) are vivid; the uncompromising reality of the detail makes the reader despair of any rehabilitation for the subjects. One, "Max", fitted from gaol to hospital with gusto. He committed bigamy and brought the second wife to visit the first. The pattern of his misdeeds showed emotional incongruity and shallowness, and yet his intelligence was high. "At any sort of contest based on a matching of wits he is unlikely to come off second best." The story of "Roberta" suggests immaturity; she involved her family in debt and was morally profligate and socially irresponsible. "Arnold" was a small swindler, "giving as collateral for a loan, property owned by another, bad checks, wrecking an automobile which he had bought on credit and for which he made no effort to pay, surreptitiously selling a half dozen of his uncle's cows and blowing the cash, in these and scores of other but similar activities he kept the local law enforcement agencies extended. He

¹ "The Mask of Sanity: An Attempt to Clarify Some Issues about the So-Called Psychopathic Personality", by Hervey Cleckley, M.D.; Second Edition; 1950. St. Louis: The C. V. Mosby Company. Melbourne: W. Ramsay (Surgical) Proprietary, Limited. 8½" x 5½", pp. 560. Price: 68s. 3d.

seemed always so frank and honest, so thoroughly without malice, that often those damaged by him withdrew their charges to give him another chance". "Tom" was a petty thief and ne'er-do-well; he married a well-known prostitute whose offerings he had shared with friends and brief acquaintances, soon left her and showed neither concern about what he had done nor any responsibility to the woman. "Frank" was a minister of religion and had four children. In spite of this he had a long gaol and hospital record for misdemeanours, drug and alcohol addiction. "Anna" was a good-looking young woman who could talk with sense on Hamlet's essential conflict or on current affairs. Her lurid story of sexual promiscuity began at high school among boys and she continued in the same way into married life, casually completing legal marriage ceremonies with one man after another just as she encountered them in welfare work. Psychopaths come from all strata of society; Cleckley gives examples among men of business, men of the world, "gentlemen", scientists, physicians and psychiatrists. There are, as might be expected, grades of intensity in this disorder of conduct and apparently it can be circumscribed. For example, a woman was a conspicuous success in her profession, but on the plane of sexuality her conduct was infantile. These people who wear "the mask of sanity", as the author so well describes it in the title of his book, are a cause of wonderment. To conjecture why they manage to "get away with" so much would be an interesting, but at the moment fruitless, exercise. It will be more profitable to enumerate the characteristic points emerging from the author's study. They are set out under the heading "A Clinical Profile" in separate chapter headings as follows: superficial charm and good "intelligence"; absence of delusions and other signs of irrational thinking; absence of "nervousness" or psychoneurotic manifestations; unreliability; untruthfulness and insincerity; lack of remorse or shame; inadequately motivated antisocial behaviour; poor judgement and failure to learn by experience; pathological egocentricity and incapacity for love; general poverty in major affective reactions; specific loss of insight, unresponsiveness in general interpersonal relations; fantastic and uninviting behaviour with drink and sometimes without; suicide rarely carried out; sex life impersonal, trivial and poorly integrated; failure to follow any life plan.

The next question that arises is an interpretation of the condition of these persons—how they differ from others and what they suffer from. Cleckley points out that the mask of sanity worn by the psychopath is very convincing, but that the conviction arises that in regard to him we are not dealing "with a complete man at all, but with something that suggests a subtly constructed reflex machine which can mimic the human personality perfectly . . . so perfect is this reproduction that no one who examines him can point out in scientific or objective terms why he is not real". Cleckley's concept of the psychopath's status "postulates a selective elimination or blockage which prevents important components of normal experience from being integrated into the whole human reaction, particularly an elimination or attenuation of those affective components that ordinarily arise in major personal and social issues". Cleckley calls the condition a semantic disorder as indicating "a personality so

damaged that experience as a whole cannot be grasped or utilized in its ordinary significance or meaning". In this instance the giving of a descriptive name to the condition does not matter very much; the important point is to understand the malady in the hope that we shall be able to do something for those affected by it. Legal punishment for misdemeanours and moral suasion are useless. The psychopath is unlikely to seek treatment, nor is he likely to take kindly to any suggestion that measures for his protection should be instituted. As he does not present the stigmata of insanity he cannot be certified and sent to a mental hospital. Cleckley thinks that it should be possible to have psychopaths detained for treatment. For this purpose he thinks that the patient's actual performance in living should not be ignored when his mental competency is determined. It should, he thinks, be granted that there are degrees of competency and legal responsibility and holds that the idea of the existence of a sharp line between sanity and insanity should be dropped. When a psychopath commits an anti-social act, he should "be restricted by some legal instrumentality such as an indeterminate sentence or commitment, and psychiatric judgment should be considered in deciding when he is to be returned to the community, and afterwards in the application of measures to safeguard and supervise him in his progress". "Legal facilities for placing the psychopaths under medical care and supervision should be established, not only for those whose felonious acts constitute a grave menace to the community, but also for those whose persistent incompetency is obvious in other ways."

Treatment of the psychopath may be considered from two points of view. The first is the cure of his disability and the second is the protection of those in his immediate environment from the effects of his antisocial acts. Since treatment will not be carried out unless the psychopath is placed where treatment can be given, the protection of those around him may be taken as provided for when he is put under treatment. The kind of treatment that can be given with any prospect of success is not extensive. Cleckley mentions electric shock therapy, about which "encouraging results" have been reported, and also pre-frontal lobotomy. The question arises whether either of these measures could or should be applied to an unwilling patient—and many psychopaths will be unwilling to be treated. There comes to mind at once the great number of hospitals or other places of detention that would be needed for the accommodation of the community's psychopaths. We can imagine that in an ideal community, if therapy was found to be effective, an unwilling psychopath who was a menace to his neighbours would be given a choice between detention in an institution for an indeterminate period on the one hand and on the other treatment at the hands of selected experts with hope of release at a later date. In an ideal community, too, measures would need to be laid down to safeguard personal liberty so that the designing and unscrupulous would not be able to use the false brand of psychopath to rid themselves of unwanted companions. It is clear that the questions opened up by Cleckley cover an enormous field. If he has done nothing else he has made out a good case for the recognition of performance as one of the criteria in the assessment of sanity.

Current Comment.

AN ARTIFICIAL KIDNEY.

AN entire supplementary number of *Acta medica Scandinavica* is devoted to an article on the artificial kidney embodying the results of research carried out by Lembit Norviit in the medical clinic of the University of Lund, Sweden.¹ When Starling first demonstrated that the glomerulus of the kidney behaves like a gel filter it was inevitable that models should be suggested and made. Starling used peritoneal membrane stiffened with gelatin; C. J. Martin improved on this as a filtering technique by impregnating a clay candle with hot gelatin solution, and when this had set he had a "glomerulus" which could be subjected to pressures two hundred to two hundred and fifty times the arterial. Then in 1913 J. J. Abel, L. G. Rowntree and B. B. Turner for the first time employed a method which they called "vividiffusion" and which Norviit prefers to designate as "extracorporeal dialysis of blood *in vivo*".² In this the blood of the living experimental animal, rendered non-coagulating, circulated through celloidin tubes and equilibrated with a dialysing fluid outside. Later methods aimed at improving the technique; the volume of the blood in the apparatus was reduced, the surface of the membrane (and "Cellophane" appeared superior) was increased, heparin and not hirudin was used to prevent coagulation, the dialysing fluid was stirred and various devices were employed to allow the dialysis to proceed without anaesthesia or injury. An interesting and commendable feature of Norviit's sketch of the history of the method is the inclusion of diagrams illustrating the various techniques of his predecessors and hence the several improvements effected. His own method has been based on that of N. Alwall, of Lund (1947), and seems to be the best yet put forward.³ Norviit's main object in his research was to render rabbits uraemic by injection of mercuric chloride and then to discover whether the condition was alleviated by extracorporeal dialysis. He claims to have succeeded, though the duration of dialysis was a matter of a few hours. The research is well described and with admirable candour, but, as the author himself admits, mercuric chloride can injure other organs as well as the kidneys. He does not mention the main objection to vividiffusion, which is that the artificial kidney is simply a big glomerulus; the highly specific action of the tubules, in both absorption and excretion, standardizing the blood with respect to reaction and the relative and absolute concentrations of its constituents, is unrepresented. Norviit's article is worth study, but it is not claimed, and indeed it cannot be claimed, that this technique can be applied to the human patient suffering from uraemia (see, however, *THE MEDICAL JOURNAL OF AUSTRALIA*, January 31, 1948, page 141).

PNEUMONIA DUE TO FRIEDLÄNDER'S BACILLUS.

PERHAPS it is pardonable to risk being thought archaic and to call one of the rarer but serious forms of pneumonia by its more familiar name. The bacillus of Friedländer may be only a memory of courses in bacteriology to many doctors, but, whether we use its older name or call it a *Klebsiella* it is a highly dangerous organism. *Klebsiella pneumoniae* can usually be identified quickly by bacteriological examination of the sputum, and even smears will generally reveal the causal organism at an early stage. It has been extensively studied; type specificity related to specific polysaccharides can be determined, and homologous antisera have been prepared, but with disappointing results. This type of pneumonia resembles the virus

types in one particular, that sulphonamides do not yield so happy a therapeutic result as in the pneumococcal infections of the lung. The significance of this lies in the high mortality rate, which has been usually given as in the neighbourhood of 80%. This bad prognosis is no doubt related to the pathology of the disease, in which massive exudative lesions are formed in one or several pulmonary lobes, associated with suppuration and necrosis. Maurice Nataro, David Shapiro and Armond T. Gordon, in a study of this disease with special reference to treatment, give the incidence of *Klebsiella* infections as 0.5% to 1.6% of all types of pneumonia, and quote mortality rates observed as recently as 1945 as ranging from 51% to 97% in different series.¹ Penicillin has been disappointing in treatment, and clinical results are in concordance with the observation that the organism is not sensitive to penicillin *in vitro*. The authors can find only 10 cases recorded in the literature in which streptomycin has been used, but the reports are favourable. They present a series of four more cases illustrating treatment with this antibiotic, and one in which aureomycin was used. Their case reports give full details of the findings. The diagnosis was positively determined in all, and progress was checked by bacteriological and radiological examination as well as by clinical observations. Three patients were Negroes, and two were white men; all were young men in the second and third decades, except one who was aged forty-four years.

All the patients were very ill on admission to hospital, and were given adequate doses of penicillin at once, but without encouraging results. The first four patients were then given streptomycin, with prompt response in all cases but one. The fatal case was that of the man, aged forty-four years, who had an exceedingly rapid and acute course, and died in less than three days. The others made good recoveries, and the lesions of the lungs resolved with little residual fibrosis. The fifth patient was treated with large dosage of penicillin, but after four days the lesions were spreading widely, and aureomycin was given. The response was dramatic, the patient's condition was greatly improved within twenty-four hours, and he was afebrile a day later. He made a complete recovery. The authors were led to use aureomycin because of other reported promising results, and also by reason of its ease of administration and its low toxicity. Combining all the cases so far reported of *Klebsiella pneumoniae* treated with streptomycin, Nataro and his colleagues find that only three patients died; of these two died within less than twenty-four hours of the start of treatment by streptomycin. Though the series is very small, there is evidence that streptomycin has been successful at a stage when the more chronic changes in the pulmonary lesions have begun. Roughly speaking two types of this infection have been recognized, a very acute type, and one in which the process becomes more deliberate, but is associated with severe damage to the lungs. In this small series of four cases no sign of cavitation was discerned after recovery. The single success with aureomycin suggests that further trials will be awaited with interest.

VANISHING TUMOUR OF THE LUNG.

THE names given to the multitude of morbid states to which man is subject are all too numerous, and show no signs of diminution. Sometimes a touch of the picturesque is allowable or forgivable. There is some just claim for this quality in the name "vanishing tumour of the lung", which has been applied to a localized collection of fluid transudate in one or other of the pulmonary transverse fissures. W. I. Geffer, K. R. Boucot and E. W. Marshall have reported four cases of this condition, derived from a series of six seen by them within a year.² Their search of the literature reveals only 18 cases of interlobar transudates occurring in congestive cardiac

¹ *Acta medica Scandinavica*, Supplementum 245, accompanies Volume CXXXVIII, 1950.

² *Transactions of the Association of American Physicians*, Volume XXVIII, 1913, page 51.

³ See particularly *Acta medica Scandinavica*, Volume CXXVIII, 1947, page 317.

¹ *The Journal of the American Medical Association*, September 2, 1950.

² *Circulation*, September, 1950.

failure, but they doubt if the condition is as rare as this would seem to indicate. It is indeed possible that it has not occurred to the great and growing number of medical authors to record this condition, and perhaps more possible that it has not been observed, since serial radiographic studies in patients with cardiac failure are not always made. Inquiry from a radiologist on the staff of a hospital with 25,000 yearly admissions revealed that he could recall only ten such cases in fifteen years. The authors' assumption that an interlobar collection of transuded fluid usually requires the combination of congestive failure of the heart and an obliterative pleurisy may be accepted. There appears to be no connexion between the severity of the heart failure and the appearance of interlobar fluid, but this sign has been recorded as the first manifestation of cardiac failure. Likewise, the aetiology of the cardiac condition, as one might expect, has no apparent bearing on its appearance. The most usual site was the right transverse fissure, though fluid has also been observed on the left side, and on both. The authors admit that the evidence of obliterative pleurisy in all reported cases is not always convincing, though it seems logical to look for a reason for loculation of the fluid. The cases reported are all those of elderly people in whom the presence of hydrothorax was readily demonstrated, but physical examination did not suggest that fluid was present in the pleural sacs other than in the usual site, between the visceral pleura and the parietal pleura. The diagnosis, as in interlobar empyema, was made by radiological means, either by fluoroscopic examination or from a film. In this small series it is of interest to note that the shape of the interlobar shadow was not always wedge-like, as is the traditional description; it was found to assume round, oval, spindle, semilunar, wedge or linear shapes, depending on the volume and position of the fluid, the projection angle, and the physical state of the lung. The importance of visualizing the fluid from more than one aspect is emphasized, though surely this is well known. The most interesting feature of this condition was that described by its name, for on standard treatment the interlobar fluid disappeared as diuresis became established. In fact, the diagnosis, if this is in doubt, is soon made or confirmed by the rapid disappearance of the transudate from its interlobar site as from elsewhere. The chief interest of this apparently unusual manifestation of congestive cardiac failure lies in the differential diagnosis, which helps to sharpen our anatomical memories of the obvious fact that there is pleura between the lobes as well as on the outer aspects of the lungs, a fact sometimes important in dealing with the complications of pneumonia.

"IDIOPATHIC" HYPOCHROMIC ANÆMIA—A MISNOMER.

CHRONIC IRON DEFICIENCY in adults, when not caused by obvious blood loss, is still frequently called "idiopathic hypochromic anæmia". Whitby and Britton,¹ for instance, use the term without qualification or apology, though their very definition of it implies a contradiction. They state that "idiopathic hypochromic anæmia and chlorosis are classical examples of an anæmia due essentially to iron deficiency". Why should an anæmia that is due essentially to iron deficiency be called idiopathic? Wintrobe² prefers the term chronic hypochromic anæmia and writes "idiopathic" hypochromic anæmia with the implied criticism of inverted commas. In an editorial article entitled "Idiopathic Hypochromic Anæmia—An Obituary", Carl V. Moore³ maintains that the term is confusing and should be abandoned, for it implies that

the cause of the iron deficiency is unknown and obscure. While some aspects of iron metabolism are not yet fully understood, the causes of chronic hypochromic anæmia are sufficiently clear for the word idiopathic to be dropped. The great majority of patients suffering from this condition are women between the ages of thirty-five and fifty years; their anæmia is due to loss of iron from the body which in turn comes from repeated pregnancies, chronic hæmorrhage or even normal menstrual flow. This type of anæmia is less common than formerly probably because of the improvement in antenatal care, in medical services generally and in nutrition. Poor diet or poor absorption from the intestinal tract for any reason may accentuate the deficiency, but in Moore's opinion they cannot precipitate its development unless iron is also lost from the body. He states categorically that no carefully studied patient has ever been shown to provide an exception to these statements, though it has sometimes been necessary to continue observations for months in order to detect intermittent bleeding from the genito-urinary or gastrointestinal tract. It is conceivable, he adds, that exceptions may be found in regions where the diet is so poor in iron that the population exists in precarious iron balance; even so, there is no justification for the term "idiopathic". This is a very important point and one which needs to be emphasized. A cause of disease that operates slowly and insidiously is none the less a definite cause, and a force to be reckoned with. Poor diet or faulty food habits over a number of years may be just as important as sudden hæmorrhage from a duodenal ulcer. In the latter emergency prompt action is taken by a team of experts; but much less attention is paid to the subtler, more insidious processes that initiate and establish disease. It is a confession of failure to use the word "idiopathic". The real trouble is that we tend to use words without thinking of their meaning. The familiar polysyllabic roll fosters a kind of word-deafness. "Essential" is another word that appears too often in medical descriptions. Why should a disease be called "essential" hypertension? It is no mere pedantry to insist on precision in the use of words; speech colours and moulds our thoughts and "as a man thinketh in his heart, so is he". Moore is to be commended for insisting that the term "idiopathic hypochromic anæmia" is confusing and should be abandoned.

FOREIGN BODIES IN THE CARDIO-VASCULAR SYSTEM.

In his book "Surgery of the Heart" (published in 1941), E. S. J. King has pointed out that the fate of a foreign body in the heart depends largely on whether it is lying in the cardiac wall or is free in one of the chambers. Objects may remain in the heart wall for long periods without producing ill-effects. An object free in a cavity may become entangled between the trabeculae and attached to the wall; it may be carried with the blood-stream into the arteries or fall into the inferior *vena cava* and so into peripheral veins, and embolism of an artery, for example, a branch of the pulmonary artery, may be the cause of death. In view of these uncertainties and the technical difficulties of operation, the management of a foreign body in the heart, or elsewhere in the cardio-vascular system, may present a considerable problem. King tends to deal with particular examples rather than to generalize, but the impression given is that, subject to technical considerations, foreign bodies in the heart are better removed and in some instances should be removed. In a more recent treatment of the subject N. R. Barrett⁴ makes the clear generalization that a foreign body lodged in the cardio-vascular system is always a potential danger to life, and that wherever it is it should be taken out whenever possible. He considers that the technical details of the operations which may have to be performed have been so far perfected that the onus is now upon the surgeon to say why a particular object should not be

¹ Whitby, L. E. H., and Britton, C. J. C. (1950), "Disorders of the Blood: Diagnosis, Pathology, Treatment, Technique", Sixth Edition. London: Churchill.

² Wintrobe, Maxwell M. (1949), "Clinical Hematology", Second Edition. Philadelphia: Lea and Febiger.

³ Moore, C. V. (1950), "Idiopathic Hypochromic Anæmia—An Obituary", *Blood*, September, page 876.

⁴ *The British Journal of Surgery*, April, 1950.

taken out of the heart rather than why an operation should be advised. There are three clinical phases in the history of these patients, Barrett states, in which a decision must be made. In the emergency the concern is to save life and the presence of a foreign body in the heart is of secondary importance. During the period of convalescence and shortly after, the decision to operate depends upon the belief that late complications can be avoided or that limitations of cardiac function can be ameliorated without exposure of the patient to mortal hazard. Patients who have harboured a foreign body in the heart for years without apparent harm will not want it removed, but they may come to the surgeon when complications occur; some of these late complications, Barrett points out, can still be overcome by removal of the foreign body, but others are beyond surgical cure. In most cases, of course, operation will be a matter for a skilled and experienced surgeon. The general practitioner or general surgeon confronted with an emergency has the rule already mentioned that the saving of life is what matters; the foreign body itself is of secondary importance. Barrett refers to the varying views of different surgeons, each based upon a limited experience; but about one thing, he states, there is general agreement—namely, that the discovery of a foreign body lying in the heart or in one of the great vessels does not in itself constitute an immediate surgical emergency; it is a challenge to stop and think. The skilled surgeon with a knowledge of modern surgical technique, and with the aid of antibiotics, anticoagulants, good anaesthesia and supportive therapy, can do much that was impossible a few years ago. Soon he may be able to do much more. At a recent meeting of the International Society of Surgery it was remarked that the chambers of the heart were the only remaining surgical frontier. But this frontier, Barrett states, has been crossed by individual surgeons in many countries; and workers in various parts of the world have shown in experimental animals that life can be maintained by an extracorporeal circulation in which the vital functions of the cardio-respiratory system are maintained by mechanical heart and lungs. These experiments allow the chambers of the heart to be opened in a relatively dry field; when they can be applied to men and women, Barrett points out, any remaining doubts about the wisdom of operations performed upon the heart will have been dispelled.

A foreign body known to be inside a peripheral vein should, Barrett states, be removed; the operation is not difficult except in some parts of the *venae cavae* and the cerebral vessels. But since foreign bodies are seldom diagnosed as being inside the lumen of a vein until migration has occurred, and because they hardly ever enter peripheral arteries except from the left ventricle or through the wall of the aorta, treatment is mostly of foreign bodies lodged in or near to the heart itself. An object impacted in a branch of the pulmonary artery should also be taken out to avoid late lung complications.

Barrett's account of the variety of foreign bodies that have been found in the cardio-vascular system and of their mode of entry and migration in the body provides interesting reading. Only a few points can be mentioned here. Foreign bodies may appear in the venous system when the patient is unaware of any accident or abnormality. They may enter a vein through the skin, for example, a piece of hypodermic needle; by erosion of the vein wall, for example, a radium needle; from various parts of the alimentary tract; from the uterus, the vagina, the bladder, and the bronchial tree. They generally enter systemic arteries as emboli from the left side of the heart, but they have entered the aorta and other large vessels directly. Foreign bodies in the heart generally enter by direct perforation through the thorax, but they may come from the periphery via the venous system, from the pulmonary vessels, or by perforation from the oesophagus. The wound of entry tends to heal rapidly and so to be hard to find. Migration from a peripheral vein to the heart, or to a branch of one of the pulmonary arteries, is usually symptomless, unless there is accom-

panying infection or perforation. Foreign bodies in the heart may be impacted or entangled in the heart structures, or may move on from the right ventricle to be impacted in a peripheral branch of the pulmonary artery, or from the left ventricle into a system artery, sometimes with resultant ischaemia and gangrene; the risk of this is unpredictable. They can remain mobile and free in the heart cavity for at least six to eight weeks. They may be encapsulated in organized fibrin and remain harmless for years. They may perforate the heart wall, generally with fatal results. They may carry organisms in the blood stream, and in the heart they may cause a wide variety of other effects. They may cause no apparent effects. In some patients, Barrett points out, symptoms and complications are present from the first, in others they come on at any time up to thirty years later. In all they are more likely than not to occur ultimately. The difficulties involved in their removal are being overcome, and there is a good deal to justify the swing advocated by Barrett away from the conservative management favoured a few years ago.

A SYMPOSIUM ON VIRAL HEPATITIS.

CERTAIN important aspects of viral hepatitis have been recently presented¹ in a symposium based on work carried out between 1947 and 1949 by members of the American Occupation Forces in Germany. W. Paul Havens, junior, explains in a foreword that in the two years after cessation of hostilities in Germany the incidence of this disease among American troops steadily increased. The magnitude of the problem prompted establishment of a hepatitis centre at the 120th Station Hospital in Bayreuth for the treatment of all patients with the disease. In addition to its value as a treatment centre the hospital provided the opportunity to study the clinical course of the disease, to extend and elaborate existing knowledge about certain tests of hepatic function, to make epidemiological observations and to obtain material from patients in the acute and convalescent phases for study in the United States. Approximately 4000 patients with viral hepatitis were treated at the centre. By reason of the large number of patients and the completeness of study of various aspects of hepatic function, a vast amount of data was accumulated. The data selected for the papers in the symposium are those that illustrate new observations or extend and elaborate previous studies. In all there are eight papers by fourteen authors. The subjects are the history of epidemic viral hepatitis in Germany, epidemiological aspects among United States troops in Germany between 1946 and 1950, an evaluation of two screen tests for the detection of early and subicteric infections, serum cholesterol and cholesterol ester values, factors influencing the retention of bromsulphalein in the blood of those infected, a comparison of the thymol, cephalin-cholesterol flocculation and colloidal red tests, the results of cholecystography in infected patients, and the clinical course of the disease with the effect of exercise during convalescence. It is of general interest to note that the hepatitis encountered during the period of review was mild, in contrast with that previously described. The severe infections of earlier years led to emphasis on residual hepatic damage and the need for prolonged rest in bed and excellent diet during convalescence. These concepts, Havens points out, were largely derived from experience with men exhausted by wounds and privation; the rigid regimens of therapy may well be modified for previously healthy young adults with the milder infection when certain criteria are observed. Those who are primarily interested in clinical pathology and in virology should find much that concerns them in the relevant papers, but the symposium as a whole will be of value to the physician and the epidemiologist seeking information of a disease that has achieved increasing prominence in recent years.

¹ The American Journal of Medicine, May, 1950.

Abstracts from Medical Literature.

PHYSIOLOGY.

Pulmonary Ventilation of Persons in Lateral Decubitus Position.

E. ROTHSTEIN *et alii* (*The Journal of Thoracic Surgery*, June, 1950) have found by bronchspirometry that when a person lies on his side the lung on the under side breathes more than the lung on the upper side. The total oxygen consumption was increased during the experiments by an average of 34% in persons lying on the right side and 9% in persons lying on the left side. This was due almost entirely to an increase in oxygen consumption by the under lung. A slight increase in the total tidal air was noted for the person in the lateral as compared with the supine position. The respiratory efficiency, as measured by the ventilation equivalent, was increased in the under lung of the person in the lateral position.

Observations on Drinking Induced by Hypertonic Solutions.

J. H. HOLMES AND M. I. GREGERSEN (*The American Journal of Physiology*, August, 1950) state that one of the most effective and convenient methods of producing thirst experimentally is the intravenous injection of hypertonic salt solution. The effect, as measured by the voluntary water intake, is prompt and reproducible with remarkable uniformity. Observations on the drinking so induced show that there are large individual variations in the time and duration of drinking as well as in the total amount of water ingested. The response of the individual dog in repeated tests is consistent from day to day and varies directly with the amount of salt injected. The amount of water ingested is apparently not determined by the amount required to dilute the injected salt to isotonicity. Drinking does not occur if water is introduced into the stomach twenty to thirty minutes before the test, but if it is administered at the time of the test the dog drinks as usual. If the water ingested after an injection of salt is shortly thereafter withdrawn through a gastric fistula, drinking is resumed in three to five minutes. Denervation of the stomach (vagotomy and spinal section at the level of the first or second thoracic segment) did not appear to modify the drinking response to salt. Pitressin given before a test delays the onset of drinking. The non-electrolyte sorbitol (and sucrose) is as effective as sodium chloride in producing drinking, whereas glucose is much less effective.

Physiological Responses to Mixture of Snake Venom and Egg Yolk.

P. BOQUET, M. DWORETZKY AND H. E. ESSEX (*The American Journal of Physiology*, June, 1950) report that the mixing and incubation of egg yolk emulsion with all snake venoms thus far used has resulted in the rapid formation of a product "D-L substance" which is highly toxic for rabbits, cats and guinea-pigs, and less toxic for dogs. The work of Delezenne and Ledebt has thereby been confirmed and extended. The D-L substance is heat stable in cold. It does not appear to

be related to histamine since it is non-dialyzable. In addition, its effect on the intact animal is not counteracted by "Benadryl" or epinephrine, and its effect on isolated segments of the intestine of the guinea-pig is unlike that of histamine. Various materials, such as egg white, milk, lymph, ascitic fluid, lecithin, rabbit brain and rabbit muscle, have been mixed and incubated with snake venoms, but thus far only egg yolk mixtures have resulted in the appearance of a toxic product. The D-L substance caused pronounced relaxation of the contracted isolated segment of the ileum of the guinea-pig. Contractions induced by histamine, acetylcholine or cobra venom were similarly affected. The mode of action of the D-L substance in the intact rabbit and cat, as well as in the isolated heart-lung preparation of the rabbit, has been shown to be that of marked occlusive spasm of the entire pulmonary arterial system with the exception of the main trunks. The mode of action in the guinea-pig and dog has not been conclusively determined. The response of the pulmonary circulation of rabbits dying of anaphylactic shock is indistinguishable from the response to injections of the D-L substance.

Physiological Effects of Large Doses of Epinephrine.

I. M. VIGAN AND H. E. ESSEX (*The American Journal of Physiology*, July, 1950) have determined the intravenous minimum lethal dose of epinephrine for dogs, rabbits and guinea-pigs. Shock was induced in dogs given large doses of epinephrine intravenously during a period of thirty-one to one hundred and thirty-five minutes. Dogs that recovered from the shock were again injected with a large dose of epinephrine at a later date and were found to be more resistant to the drug, as had been previously reported by Parkins and co-workers. The animals were able to survive a second dose that would have been lethal initially, but the physiological effects were not different from those observed after the initial injection. A low blood pressure or a state of shock followed the termination of the second injection in several cases. Animals that had previously undergone sympathetic ganglionectomy reacted much more violently to large doses of epinephrine than did intact animals. By administration to dogs of repeated large amounts of epinephrine, a tolerance was developed in some animals as great as three times the surely lethal dose. Such a high tolerance was not developed in rabbits. Decisive evidence was not found for the existence of an antihormone to epinephrine as an explanation for the high tolerance acquired to the drug by dogs. The nature of the tolerance developed to epinephrine still remains an enigma.

Chemical Changes in Muscle after Neurotomy and Tenotomy.

F. L. HUMOLLER, B. GRISWOLD AND A. R. MCINTYRE (*The American Journal of Physiology*, June, 1950) state that a study has been carried out of biochemical changes in muscle after neurotomy and tenotomy. In this study 230 rats were used. It has been shown that after denervation the water content of the involved muscle increases significantly, but not neces-

sarily progressively, with atrophy, while the total nitrogen content of denervated muscle decreases as atrophy progresses. On the second day after tenotomy the glycogen content of the affected muscle drops to about 19% of its normal value. Twenty-four hours later the loss of glycogen exceeds 40%, but later, as the tendon becomes re-established, the glycogen content of the muscle begins to increase. After neurotomy, the glycogen content remains unaffected until about the third day; then it drops precipitately and remains at this low level for the duration of the experiment. One day after neurotomy the phosphocreatine is completely absent in atrophy following tenotomy. After neurotomy the inorganic phosphate content of the muscle is consistently lower than that of the normal control. In tenotomized muscle the inorganic phosphate fraction remains at a normal level for the first three days after cutting of the tendon and then gradually decreases. The ATP fraction of denervated muscle remains rather constant, near the normal level, for the first five days after neurotomy and then drops rather sharply. After tenotomy the decline in the ATP content of the muscles involved is much more gradual, not becoming significant until about the twentieth day. The significance of these results is discussed.

BIOCHEMISTRY.

Tryptophane Deficiency.

J. N. WILLIAMS AND C. A. ELVEHJEM (*The Journal of Biological Chemistry*, April, 1950) have shown that a tryptophane deficiency in the rat greatly reduced liver xanthine oxidase activity and endogenous respiration. Succinic oxidase was also noticeably decreased. Activities of cathepsin and fatty acid oxidase were not altered by this deficiency condition. General liver characteristics such as liver protein, total solids and non-protein nitrogen concentration remained unchanged in a tryptophane deficiency.

Folic Acid.

D. ELWYN AND D. SPRINSON (*The Journal of Biological Chemistry*, June, 1950) have studied the utilization of nitrogen-labelled L-serine and glycine for hippuric acid formation in normal and folic acid-deficient rats. From the lower utilization of serine and the greater utilization of glycine in the deficient rats it was estimated that in folic acid deficiency the rate of conversion of serine to glycine is reduced to one-sixth of the normal value.

Alkaline Phosphatase.

E. V. FLOCK AND J. BOLLMAN (*The Journal of Biological Chemistry*, June, 1950) have shown that the increase of the alkaline phosphatase content of intestinal lymph following feeding of a fat-containing meal is abolished or greatly diminished in rats with ligation of the bile duct or biliary fistula. Thus it appears that the bile in the intestine is somehow involved in the transport or release of alkaline phosphatase from the intestinal mucosa, as well as in the absorption of fat. The phosphatase content of the intestinal lymph of fat-fed rats increases with increased fat absorption, but not when bile is absent from the

intestine. In the rats with obstructive jaundice, higher concentrations of the enzyme are found in plasma than in intestinal lymph, a finding which suggests that the intestinal mucosa is not responsible for this increased amount of enzyme in the plasma.

Scurvy.

J. A. SCHACK *et alii* (*The Journal of Biological Chemistry*, June, 1950) have stated that a non-specific inhibitor of hyaluronidase of normal guinea-pig serum increased significantly with the onset of severe clinical scurvy and returned to normal values when the surviving animals were returned to healthy conditions. Methaemoglobin appeared in the blood and quinone-like compounds were excreted in the urine with the onset of scurvy and during the period of elevated level of hyaluronidase inhibitor.

Anaemia.

C. J. GUBLER *et alii* (*The Journal of Biological Chemistry*, June, 1950) have investigated the influence of experimentally induced infections on the absorption of iron by determining the total amount of both non-radioactive and radioactive iron retained in the body during the period of infection. In the presence of infection, a decrease was observed in the amount of iron retained. In rats with turpentine-induced abscesses, turpentine was found to decrease the absorption of iron, and this effect could be reversed by administration of cobalt. Cobalt administration did not significantly affect the absorption of iron in normal rats.

Serum Cholesterol.

I. M. LONDON AND D. RITTENBERG (*The Journal of Biological Chemistry*, June, 1950) have begun a series of deuterium studies in man. The half-life time of serum cholesterol in one normal man was found to be eight days, the turnover time twelve days. The total body water in a normal man was found to be 72% of the body weight.

Fat Metabolism.

D. S. GOLDMAN *et alii* (*The Journal of Biological Chemistry*, June, 1950) have studied the oxidation of palmitic acid-1- C^{14} by extrahepatic tissues of the dog. The compound was injected intravenously into normal and liverless dogs, and its conversion to carbon dioxide was measured. Approximately 11% of the C^{14} was expired as carbon dioxide in seven hours by the normal dog, and about 4% in the same length of time by the liverless dog. Evidence is presented for the view that less than 40% of the labelled carbon dioxide exhaled by the normal dog could have resulted from direct oxidation of the labelled palmitic acid by all of its extrahepatic tissues.

Plasma Phospholipides.

D. S. GOLDMAN *et alii* (*The Journal of Biological Chemistry*, June, 1950) have determined the recovery of labelled fatty acid in phospholipides of plasma and tissues after palmitic acid 1- C^{14} was injected into both normal and hepatectomized dogs. Seven hours after the injection about 2% of the C^{14} was found as phospholipide fatty acids of plasma in the normal dogs. About 0.1% was so recovered in the liverless

dogs. The liver is therefore the principal site for the formation of fatty acid ester bonds of plasma phospholipide molecules. In the liverless dogs, isotopic fatty acids were recovered in the phospholipides of heart, skeletal muscle, kidney, small intestine and its mucosa, and lung. The failure of these tissues to deliver appreciable amounts of isotopic phospholipide fatty acids to the plasma of the liverless dogs demonstrates that, in this animal, the phospholipides synthesized by the tissues above are not normally concerned with the transport of fatty acids from one organ to another.

Bone.

W. F. NEUMANN AND B. J. MULRYON (*The Journal of Biological Chemistry*, August, 1950) have studied the behaviour of powdered fresh bone when suspended in phosphate buffer. In solutions of constant composition, the bone mineral was found to undergo a rapid recrystallization.

Fat Metabolism.

E. O. WEINMAN *et alii* (*The Journal of Biological Chemistry*, June, 1950) have examined the expired carbon dioxide from fasted rats into which had been injected intravenously palmitic acids labelled with C^{14} at their carboxyl, sixth and eleventh carbon atoms respectively. The acids were administered in the form of their triglycerides. The location of the label on the palmitic acid chain did not influence significantly the amounts of $C^{14}O_2$ expired or the rates of elimination of $C^{14}O_2$. It is postulated that, once the process of breakdown of palmitic acid is initiated in the intact animal, a palmitic acid molecule is disrupted in such a manner that all its carbon atoms are converted to carbon dioxide at about the same time.

Calcium Metabolism.

H. E. AND H. C. HARRISON (*The Journal of Biological Chemistry*, August, 1950) have investigated the uptake of radioactive calcium by the skeleton and the influence of vitamin D and calcium intake on it. Radioactive calcium was given by stomach tube to rachitic, to vitamin D treated rachitic, and to control rats, and groups of animals were sacrificed at intervals of from two hours to two weeks after administration of Ca^{45} . The radioactivity and total calcium content of blood serum and skeleton were determined, which permitted calculation of the specific activity of serum and skeletal calcium. Analysis of the data indicates that essentially all of the bone calcium of young rats is rapidly exchangeable with body fluid calcium. The time necessary for 50% of the total skeletal calcium to exchange with body fluid calcium was estimated in six to eight weeks old rats to be approximately forty-five hours in vitamin D treated rats and sixty-five hours in rachitic rats. The rate of turnover of skeletal calcium was apparently increased by administration of vitamin D. In each group, the rate of calcium exchange was not appreciably influenced by changes in dietary calcium intake. The calcium of epiphyseal bone reached equilibrium with serum calcium more rapidly than did that of diaphyseal bone. In proportion to total skeletal calcium, ex-

change of calcium between skeleton and body fluids was much slower in older rats (fifteen to twenty weeks) than in animals aged six to eight weeks. Because of the rapid exchange of calcium between bone and body fluids, the uptake of Ca^{45} by the skeleton after its administration to the animal cannot be used as a measure of new bone salt deposition.

Detoxication.

E. H. MOSBACH AND C. J. KING (*The Journal of Biological Chemistry*, August, 1950) have studied glycuronic acid synthesis by borneol-treated guinea-pigs, using radioactive tracer techniques. Of the administered glucose activity, 1.79% to 4.05% was recovered in urinary bornyl glycuronide within twenty-four hours. After a similar interval only 0.18% to 0.29% of administered C^{14} sodium bicarbonate activity was found in urinary bornyl glycuronide, and no radioactivity was detectable in the glycuronic acid, which indicated that it contained the same ratio of C^{14} in position 6, compared to total activity, as that observed in the initial glucose. Hence the carbon chain of glucose is used directly for glycuronide synthesis, or the sequence of the steps does not permit a dilution effect in other positions during fragmentation.

MEDICINE.

Nocturnal Leg Cramps.

M. NAIDE (*The Journal of the American Medical Association*, April 15, 1950) describes the treatment of nocturnal leg cramps with "Benadryl" (diphenylhydramine). He states that the cause of the symptom is not known. Quinine or quinidine, 0.2 or 0.3 gramme taken at bedtime, often relieves it; but if not, 50 milligrammes of "Benadryl" taken at bedtime may be tried. Such treatment prevented the cramps in 15 cases reviewed.

Photofluorography in the Detection of Heart Disease.

A. K. MATHISEN *et alii* (*American Heart Journal*, April, 1950) state that the examination of 7093 photofluorograms made in the course of a tuberculosis case-finding survey in British Columbia revealed 90 cases of heart disease, but only 22 of tuberculosis. They consider that the mass miniature X-ray survey is an excellent method of case-finding in heart disease as well as in tuberculosis.

Ulcerative Colitis.

W. J. GRACE, S. WOLF AND H. G. WOLFF (*The Journal of the American Medical Association*, April 8, 1950) discuss life situations, emotions and chronic ulcerative colitis. Four fistulous subjects were studied. The motor activity of the colon was observed and photographed, colour changes were noted, lysozyme concentration was measured, and secretion on the surface of the colon was noted. In calm and tranquil periods the bowel was pale and immobile. During anger and resentment the bowel was red, hyperactive and covered with thick tenacious mucus with a high concentration of lysozyme. Petechiae and ulceration were observed during rage and resentment, associated with hyperfunction of the colon.

British Medical Association News.

ANNUAL MEETING.

The annual meeting of the Queensland Branch of the British Medical Association was held at the Medical School, Herston Road, Brisbane, on December 8, 1950, Dr. HAROLD LOVE, the President, in the chair.

REPORT OF THE COUNCIL.

The annual report of the Council for 1950, which had previously been circulated among members, was received and adopted on the motion of Dr. H. W. Horn, seconded by Dr. R. Row. The report is as follows.

The Council has pleasure in presenting the fifty-sixth annual report of the work of the Branch for the year ending November 15, 1950.

Membership.

The membership of the Branch is 851, plus 6 honorary members, as against 798, and 4 honorary members in 1949, making a total gain of 53. There are also 161 honorary associate members, 38 of whom were elected this year. Thirty-eight honorary associate members were elected to full membership on graduation.

The gains were: new members 76; transfers from other Branches 24; members reelected 3.

The losses were: members transferred from Branch 34; resignations 3; deceased 8; struck off 5, three having left Queensland, address unknown.

Congratulations.

Congratulations are extended to the following members of the Branch:

Dr. T. A. Price, Honorary Vice-President of the Branch, who completes 50 years of membership of the British Medical Association at the end of this year.

Dr. Donald Cameron upon his election to the Federal House of Representatives in the present Commonwealth Government.

Dr. H. W. Noble and Dr. Felix Dittmer upon their election as members of the Queensland State Parliament.

In addition congratulations were sent to Sir Victor Hurley, K.B.E., C.B., C.M.G., V.D., President of the Federal Council, regarding the honour of a knighthood conferred upon him by His Majesty the King.

Obituary.

We regret to record the deaths of the following members: Dr. Harold Youatt, Brisbane; Dr. H. P. Hyndes, Winton; Dr. F. G. Meade, Brisbane; Dr. F. C. Wooster, Rockhampton; Dr. Edward Mansfield, Cairns; Dr. M. W. B. Pringle, Cairns; Dr. A. M. Langan, Cairns; Dr. James Brown, Toowoomba; Dr. P. J. Kerwin, Brisbane.

Registered Telegraphic Address.

"Beema Brisbane" has been registered as the cable and telegraphic address of the Branch.

Meetings.

In addition to the annual meeting, eight general meetings of the Branch were held, including three clinical meetings. The average attendance at the general meetings was 52.

No general meeting was held in June owing to congress.

Council.

Twenty-one meetings of the Council were held, one being a special meeting. Record of attendance is as follows:

Dr. H. R. Love (President)	19
Dr. A. W. Robertson ¹ (President-Elect) .. .	11
Dr. B. L. W. Clarke (Past President) .. .	11
Dr. H. W. Horn (Honorary Treasurer, Federal Council Representative, Chairman of Committees) .. .	19
Dr. J. R. Adam (Honorary Secretary) .. .	20
Dr. B. N. Adsett (Honorary Secretary of Committees) .. .	17
Dr. Felix Arden (Councillor) .. .	13

¹ Resigned September, 1950.

Dr. R. S. Bennett (Councillor) .. .	11
Dr. K. B. Fraser (Councillor) .. .	16
Dr. Glen V. Hickey (Councillor, President-Elect) .. .	17
Dr. J. R. S. Lahz ² (Councillor) .. .	13
Dr. Alan E. Lee (Federal Council Representative, Councillor) .. .	20
Dr. F. W. R. Lukin (Councillor) .. .	13
Dr. A. D. A. Mayes (Councillor) .. .	18
Dr. H. S. Patterson (Councillor) .. .	18
Dr. W. H. Steel (Councillor) .. .	17
Dr. J. G. Wagner (Councillor) .. .	17
Dr. E. Lorimer Walker ³ (Councillor) .. .	15
Dr. R. S. Cohen ³ (Councillor) .. .	3

Scientific and Medico-Political.

February.—Clinical meeting in conjunction with the Brisbane Hospital Clinical Society.

March.—Dr. Morgan F. Windsor: "Carcinoma of the Lung."

April.—Dr. J. V. Duhig: "The Place of the Pathologist in Modern Medicine."

July.—Dr. L. D. Walters: "The Clinical Significance of Some Common Chest Complaints."

August.—Dr. E. S. J. King: "The Law of Life" (The Bancroft Oration).

September.—Clinical meeting in conjunction with the Brisbane Children's Hospital Clinical Society.

October.—Dr. L. P. Winterbotham: "Primitive Medical Art and Primitive Medicine—Men in Australia" (The Jackson Lecture).

November.—Clinical meeting in conjunction with the Mater Misericordiae Hospital Clinical Society.

The May meeting was cancelled owing to lectures delivered on May 3 by Dr. O. T. Claggett, of the surgical staff, Mayo Clinic, who lectured on "The Suppurative Diseases of the Lungs", followed by Dr. Lee Eaton, diagnostician of the Mayo Clinic Neurological Department, on "Myasthenia Gravis: Its Diagnosis and Management". These two doctors visited Brisbane under the auspices of the Post-Graduate Medical Education Committee.

Office Bearers and Councillors.

Dr. Arnold Robertson was elected president-elect for the year 1950. It is regretted that owing to personal reasons Dr. Robertson resigned from the position of president-elect. Dr. Glen V. Hickey was appointed to the position by the Council. Dr. R. S. Cohen (*proxime accessit* in the last ballot) was appointed to fill the vacancy on the Council.

Dr. R. S. Bennett, Dr. E. Lorimer Walker and Dr. J. R. S. Lahz are not seeking reelection for the ensuing year, and the Council would like to express appreciation of the services given to the Branch as councillors.

Dr. J. R. Adam was reelected to the position of honorary secretary.

The following office bearers were elected by the Council: *Honorary Treasurer:* Dr. H. W. Horn (reelected).

Chairman of Committees: Dr. H. W. Horn (reelected).

Honorary Secretary of Committees: Dr. B. N. Adsett.

Honorary Librarian: Dr. Neville G. Sutton (reelected).

Assistant Honorary Librarian: Dr. Konrad Hirschfeld (reelected).

Representation.

The Branch was represented as follows during the year.

Council of the British Medical Association.—Dr. Isaac Jones.

British Medical Association Representative Meeting, Southport, England, 1950.—Dr. Cecil Sinnamon.

Annual Scientific Meeting, Liverpool, London, 1950.—Dr. Cecil Sinnamon.

Federal Council of the British Medical Association in Australia.—Dr. H. W. Horn, Dr. Alan E. Lee.

Australasian Medical Publishing Company, Limited.—Dr. Alan E. Lee (director), Dr. T. A. Price, Dr. H. W. Horn (members).

Australian Association for Better Hearing.—Dr. Herbert Earnshaw, Dr. J. R. Hutcheon.

¹ Sick leave from July.

² Leave January to April.

³ Elected September 13, 1950.

Australian Society of Anaesthetists (British Medical Association).—State President, Dr. Arnold Robertson; Honorary Secretary, Dr. John Woodley.

British Commonwealth Medical Conference, Brisbane, 1950.—Dr. Alan E. Lee.

Federal Medical War Relief Fund: Local Committee of Management.—Dr. J. G. Wagner (chairman), Dr. F. W. R. Lukin (honorary secretary), Dr. M. Geaney, Dr. J. V. Duhig.

Florence Nightingale Memorial Committee of Australia (Queensland Branch).—Dr. Norman Sherwood.

Flying Doctor Service of Australia.—Dr. Harold Crawford.

Medical Assessment Tribunal.—Dr. G. W. Macartney.

Medical Board of Queensland.—Dr. R. G. Quinn, Dr. F. W. R. Lukin, Dr. J. G. Wagner.

National Safety Council of Australia (Queensland Division).—Dr. L. A. Little.

Medical Officers' Relief Fund (Federal): Queensland Committee.—Dr. W. H. Steel, Dr. G. W. Macartney, Dr. K. B. Fraser.

Physical Fitness Association of Queensland.—Dr. E. S. Meyers, Dr. Harold Crawford.

Physiotherapy Board of Studies.—Dr. J. R. S. Lahz.

Post-Graduate Medical Education Committee.—Dr. Alan E. Lee, Dr. H. R. Love, Dr. J. R. S. Lahz.

Queensland Council of Social Agencies.—Dr. G. B. V. Murphy.

Queensland Health Education Council.—Dr. Felix Arden.

Queensland Bush Nursing Association.—Dr. L. Bedford Elwell.

Queensland Institute of Medical Research.—Dr. W. H. Steel.

Queensland Bush Children's Health Scheme.—Dr. Felix Arden.

Red Cross Blood Transfusion Service.—Dr. Milton Geaney.

Radiologists' Congress, London, 1950.—Dr. A. G. S. Cooper.

Surf Life Saving Association of Australia (Queensland Branch).—Dr. F. W. R. Lukin.

The Editor of THE MEDICAL JOURNAL OF AUSTRALIA was represented by Dr. Felix Arden.

Ethics Committee.

The following were elected members of the Ethics Committee for 1950 by ballot at the annual meeting of the Branch held on December 9, 1949: Dr. M. Graham Sutton, Dr. Val. McDowall, Dr. J. J. Power, Dr. L. J. J. Nye, Dr. R. G. Quinn, Dr. G. W. Macartney and Dr. Norman Sherwood.

Dr. Sutton was subsequently appointed chairman, and Dr. Norman Sherwood, honorary secretary of the committee.

During the year the committee met twice to deal with three matters submitted to it for adjudication by the Council. In each case the recommendation of the Ethics Committee was adopted by the Council.

Library.

Members of the Branch continue to use the library, and during the year 154 books have been borrowed by 52 members. Country doctors, as well as metropolitan members, may borrow bound volumes. The current numbers of the journals are available for reading in the library.

The Branch subscribes to 40 journals, 13 year books, and "The Medical Annual". The "Index Medicus" is available for reference.

"The Collected Papers of the Mayo Clinic" and "The Harvey Lectures" are received annually, as well as the "Proceedings of the Royal Society". From time to time the Privy Council Medical Research Council Reports are received.

The trustees of the Sir Richard Stawell Oration, through the chairman, Dr. A. E. Rowden White, presented a bound copy of the Stawell Orations, 1934 to 1943, to the library. These orations will be bound each ten years. The Council wishes to record its appreciation of the gift.

Organization Subcommittee.

Personnel.—Dr. Horn (chairman), Dr. Adsett, Dr. Bennett, Dr. Fraser, Dr. Wagner, Dr. Lahz, Dr. Lee, Dr. Lukin, Dr. Mayes, Dr. Patterson, Dr. Lukin and the president, president-elect, past president, honorary treasurer, honorary secretary and honorary secretary of committees.

This committee met on 20 occasions and dealt with a large volume of business and submitted recommendations to the Council where matters of policy were concerned. This committee deals with all matters not involving policy or controversy, and submits a report to the Council thereon, thereby saving it a great amount of work.

Articles of Association and By-Laws.

Notice has been given to members in accordance with the Articles of Association that, at the annual meeting to be held on December 8, 1950, proposed amendments of the Articles of Association and By-Laws will be dealt with, namely Article 45 to make provision for a Chairman of Council to be elected by the Council annually, By-Law 8, alteration of the mode of election of office bearers and Council, and an additional By-Law 4 (b) whereby life members of over fifty years' continuous membership of the association are to be charged no Branch subscription. These life members receive copies of both the *British Medical Journal* and *THE MEDICAL JOURNAL OF AUSTRALIA*, free of cost, by the courtesy of the respective managements.

At a meeting of the Council held on May 12, 1950, it was agreed that members overseas should pay a subscription of £6 6s. per annum.

Press Publicity.

The Council is concerned at the increasing appearance in the public Press of medical matters mentioning the names of members of the Branch. This is in direct contravention of the by-laws.

It was resolved that members be informed that the Council will take a very serious view of the appearance of any member's name in association with medical information published in the lay Press. The onus is on the members to ensure that their name will not be published, and the only acceptable excuse in such cases will be the production, by any such member, of a written promise given by the newspaper concerned not to publish his name.

Medical Fees.

There has been a general movement in the profession throughout Queensland to increase fees for general practitioners to 12s. 6d. for consultations, 15s. for visits, and £1 1s. for week-end, holiday and night attendance.

This decision was brought to the notice of the Council of the Branch which endorsed the action.

Mileage is at present 5s. per mile one way beyond three miles and up to fifteen miles from the surgery. Over fifteen miles the fee is calculated in accordance with a memorandum drawn up for service rendered at a distance and takes into consideration cost of travel, fee for service rendered, elapsed time, risks and discomforts of travel and interference with practice.

The Council has no authority under the by-laws to determine minimum fees, nor to take any action when fees less than the customary minimum are charged. However, since the maintenance of minimum fees in ordinary circumstances is a matter of importance to the profession, the Council recommends to members that they observe customary minimum fees in ordinary circumstances. The Council will endeavour to persuade members to conform to the prevailing customary minimum fee in their area.

Lodges.

In accordance with the agreement existing in the metropolitan area, advice was received from the Government Statistician's Office that the capitation fee for the metropolitan area to come into force from July 1, 1950, would be 45s. 6d., and the income limit £541 for new members and £722 for persons who were members prior to 1915. This information was promulgated to members and to local associations.

In view of the changing aspect of lodge contract service, a statement drawn up by the Council giving the pros and cons of capitation fee and fee per service for lodge practice was sent to lodge medical officers in the metropolitan area and to all members of the Branch for their information. Those holding lodge appointments were asked for their comment. As a result the Council has formed the opinion that it would be the policy of the Branch to negotiate for a fee per service for lodge contract practice.

Workers' Compensation Act.

Owing to the increased fees in general practice the schedule of medical fees under the *Workers' Compensation Act* will come under review. The allowances for hospital treatment and medical expenses have been increased to a maximum of £50 in each case. Previously the maximum allowances were £25.

An approach was made to the Premier in regard to payment of hospital costs for injured workers in private and intermediate hospitals, but without result. The Premier's reply made it clear that it is the policy of the Queensland Government that compensation cases should be treated in public hospitals, if such institutions are available, and that only when this is not the case would the Commissioner be responsible for private or intermediate costs.

Hospital Service and Government Medical Officers.

In an endeavour to improve conditions in medical services representatives of the Council recently met the Minister for Health and Home Affairs, the Honourable W. M. Moore, in conference.

Matters discussed with the Minister included improvement of amenities and conditions in general for full-time and part-time medical officers of country hospitals and the distribution of doctors in country centres in relation to population.

The question of private and intermediate hospital accommodation in extra-metropolitan areas for patients of medical practitioners not attached to the full-time staff was also dealt with, and it is hoped that a satisfactory solution will result.

Discussion also took place on the salaries of full-time medical staff attached to the Department of Health and in public hospitals.

Another subject was the terms and conditions of service of part-time government medical officers with a view to standardizing these appointments in the different districts.

Repatriation Commission.

Fees Payable to Local Medical Officers.—These fees have been under review for some time and the Federal Council has asked that the payments be increased to a minimum of 7s. 6d. after the first, which is 10s., and that unless a satisfactory reply is received by January 1, 1951, to their representations they will reluctantly be compelled to advise members of the medical profession not to accept appointment as local medical officers.

Salaries of Full-Time Medical Officers.—As a result of the claim of the Repatriation Medical Officers' Association put before the Public Service Arbitrator a substantial increase in salaries has been granted. The Branch supported the association by giving both financial and clerical help in addition to arranging for members to act as witnesses when evidence was being taken in Brisbane.

Medical Fees Tribunal.

Personnel.—Dr. J. G. Wagner (chairman), Dr. Alan E. Lee (honorary secretary), Dr. G. W. Macartney, Dr. H. S. McLelland, Dr. R. G. Quinn, Dr. Norman Sherwood. The Medical Fees Tribunal met on three occasions. Two of the matters dealt with were workers' compensation cases referred by the Insurance Commissioner for adjudication in accordance with the agreement.

Medical-Pharmaceutical Liaison Committee.

This committee is composed of representatives of the Pharmaceutical Society of Queensland, and of the Queensland Branch of the British Medical Association. The object is to deal with problems affecting the interests of both professions. The first meeting was held on August 31, 1950, and the committee will meet quarterly in future.

Dr. Harold Love, Dr. H. W. Horn, Dr. Otto Hirschfeld, Dr. A. D. A. Mayes and Dr. R. S. Bennett are the medical members.

Pharmaceutical Benefits Act.

On September 4 the *Pharmaceutical Benefits Act* came into operation with the full support of the Council and members of the Branch.

The provision of most of the costly, specific and life-saving drugs without direct cost to the public is the outcome of a strong recommendation of the Federal Council, endorsed by all Branch Councils, and members will agree that the benefits thus bestowed upon sick people are considerable. All suggestions designed to remove anomalies in the scheme have been forwarded to the central Pharmaceutical Advisory Committee and it is hoped that in the near future most of these will be eliminated. Of particular importance to doctors is the inability of the Minister to permit doctors to obtain their supplies direct from wholesalers as heretofore, as the Act provides for the distribution of "free drugs" through retail pharmacists only, but the Federal

Council is striving to secure the deletion of this encumbrance. The additional clerical work entailed has been accepted by the profession in the interests of the people, and complaints on this score have been few. It is, however, a matter for regret that drugs in short supply, such as streptomycin, aureomycin and "Chloromycetin", have been used not wisely but too well, a liberality which has almost exhausted the supply and which has necessitated the establishment of committees to control their distribution.

National Medical Service for Pensioners.

The Branch has supported the Federal Council in its deliberations with the Minister in relation to this service. Agreement has been reached for the provision of medical attention to all pensioners and their dependants on a fee-for-service basis, the immediate rates of payment being 6s. per consultation and 7s. 6d. per visit, while the scope of service will be the usual general practitioner service provided under lodge agreements. Participation by doctors will be purely voluntary, but the opinion is expressed that there will be no good reason for non-participation. Details have yet to be finalized, but the recommendation of the Federal Council is that this concessional service will be available during the usual working hours only, and that an additional fee of 5s. will be paid for out-of-hours attendance. There can be no doubt that the pensioner medical service will be the prelude to a wider national medical service for the entire nation.

General Practitioner Group (British Medical Association).

The following is a brief report of the activities of the General Practitioner Group during the last year.

The question of an increase in fees has been raised from time to time, and the General Practitioner Committee circulated the honorary secretaries of local associations in the country and group conveners in the metropolitan area suggesting that meetings be held to determine if general practitioners wished to increase fees within their own group, as no direction would be forthcoming from the Branch Council on this matter, and any rise in fees must be initiated and implemented within the group itself. Agreement has been reached in most areas, both metropolitan and country, to increase the consultation fee to 12s. 6d. and the visiting fee to 15s.

The question of the income limit, which should regulate the acceptance of members for lodge medical benefits, has again been dealt with. It is an ever-recurring difficulty, and the enforcing of it has always proved well nigh impossible, as there is no one to police it.

The usual practice was followed in the annual election for members to the Branch Council, and certain general practitioners were recommended for support by the general practitioners throughout the State. Your committee thinks the number should be increased by one this next year, to ensure a working majority.

Meetings were held to explain and discuss the Commonwealth Government's health scheme at various stages of its development, at which Dr. H. W. Horn and Dr. A. E. Lee addressed members.

The Congress Committee asked your committee to be responsible for the organizing of the Hobbies Section, and Dr. Garth May handled this matter very satisfactorily indeed. We were also asked to arrange for the entertainment of visiting general practitioners at Whytecliffe during congress week and we thank those members of the committee who were responsible for the very excellent arrangements.

The Medical Benefits Fund of New South Wales, which a general meeting of the general practitioners was called upon to discuss, has now become the Medical Benefits Fund of Australia and well established in Queensland.

At the annual meeting of the General Practitioner Group held on July 18, 1950, Dr. L. P. Winterbotham was reelected chairman and Dr. A. D. Isles was elected honorary secretary-treasurer.

Affiliated Local Medical Associations.

Visits of Council Members to Local Associations.

Visits were paid to the following local associations by representatives of the Council: Dr. B. L. W. Clarke, Mackay and Rockhampton; Dr. H. W. Horn, Townsville and Cairns; Dr. Alan Lee, Maryborough and Bundaberg; Dr. G. V. Hickey, Toowoomba and Warwick; Dr. H. S. Patterson, Ipswich and South Burnett; Dr. R. S. Bennett and Dr. B. N. Adsett, South Coast (Southport); Dr. A. D. A. Mayes, Nambour.

All gave reports of good meetings. It is hoped that future visits to local associations will be arranged, whenever possible, to coincide with visits of post-graduate committee lecturers to the centres.

Owing to the seventh session of the Australasian Medical Congress (British Medical Association) being held at Brisbane in May and June of this year, it was decided to cancel the annual conference of the Council and representatives of local associations, usually held in June.

Downs and South-Western Medical Association.

The year 1950 has been relatively quiet. The annual meeting and dinner were held at the Globe Hotel on Saturday, September 23. The dinner was followed by a lecture by the President of the Branch, Dr. Harold Love.

At the annual meeting Dr. W. F. Machin was elected president and Dr. D. F. Farmer, honorary secretary-treasurer.

Fourteen doctors participated in the radio publicity campaign in connexion with the *Pharmaceutical Benefits Act* and proposed nationalization of medicine.

A group of interstate visitors to the Australasian Medical Congress with their hosts were entertained at luncheon and a short drive around Toowoomba before returning to Brisbane.

Clinical meetings were not held owing to lack of material, but several lectures arranged by the Post-Graduate Medical Education Committee were well attended. Three special meetings were called to enable members of the local association to know of developments in the medico-political situation.

There are twenty-three members, from Toowoomba, Clifton, Gatton, Crow's Nest and Oakey.

Ipswich and West Moreton Local Association (British Medical Association).

Office bearers: *President*, Dr. H. G. Wilson; *Honorary Secretary-Treasurer*, Dr. H. S. Patterson. The membership is 23.

Early in the year a congratulatory dinner was held at the Hotel Grande in honour of Dr. D. A. Cameron, who was recently elected to the House of Representatives. Dr. M. S. Patterson, the senior practitioner of the association, proposed the toast to Dr. Cameron and conveyed the good wishes of all the members.

During congress week members of the association entertained a party of congress members and their wives from the south and overseas. The party was driven over the Minden Range from which some beautiful glimpses of the rich and fertile surrounding farmlands are obtained. Subsequently a very delightful sherry party was held at the home of Dr. and Mrs. K. J. Hill, Ipswich.

The association advised the Branch Council that its members approved the existing agreement and terms of service with the Insurance Commissioner for workers' compensation cases.

Delegates of the association conferred with local representatives of the friendly societies and suggested the setting up of a central executive body of the friendly societies such as in Brisbane. It seems probable that such a body will be set up in the near future, and it should lead to improved liaison between the friendly societies and practitioners undertaking friendly society work.

The friendly societies were also advised that our association considered an increase in the concessional confinement fee was long overdue and should be raised from five to seven guineas. They were also informed that our association agreed with the views of Federal Council upon the principle of fee for service.

The association has given solid support to the Federal Independence Fund and to the Medical Benefits Scheme. It is pleased to record that a local canvasser for the latter has been appointed for this area.

The library of the association, which is ultimately to be housed in the new administrative block of the Ipswich General Hospital, is for the present to be housed at Saint Andrew's Private Hospital.

During the year post-graduate lecturers who visited Ipswich were Dr. C. A. Thelander, Dr. Ian Burt, Dr. Morgan Windsor and Dr. F. W. R. Lukin.

Clinical cases have also been shown at different times during the year by Dr. Wilson, Dr. Cameron, Dr. Lyons, Dr. Carter and Dr. Patterson.

Altogether the association records a happy year of steady progress.

H. S. PATTERSON,
Honorary Secretary.

Townsville Local Medical Association.

I submit the following report of the activities of the Townsville Local Association for 1950.

Great interest has been shown by all members of the local association in clinical meetings, lectures and business affairs. Meetings were held fortnightly throughout the year, programmes being so arranged that clinical meetings alternated with combined business-clinical meetings.

The membership of the association is now twenty-three.

The annual general meeting was held on January 31, 1950. Dr. L. Halberstater was elected president and Dr. K. L. King, secretary-treasurer.

The Programme Committee for the year consisted of the president, secretary, Mr. Ley, Dr. Dorney and Dr. Moore.

The Post-Graduate Medical Education Committee arranged for three lecture tours during the year. The lectures and clinical demonstrations by the visiting specialists were the outstanding features of the year's activities.

In April, Dr. Woodley and Dr. C. Leggatt visited Townsville for lectures and practical demonstrations. We were privileged to hear Dr. Ingalls and Dr. Gutteridge in August, and we have just concluded an interesting and informative session with Dr. R. Row and Dr. R. M. Murray.

In the medico-political field we have had visits from Dr. Horn in April and Mr. Cobbold in October.

Clinical meetings held were as follows:

February 28: Clinical cases presented by Dr. Douglas, Dr. Weaver, Dr. Emery and Dr. Dorney.

March 28: Paper by Mr. T. U. Ley on peripheral nerve injuries with demonstration of cases.

April 26: Visit by Dr. Woodley and Dr. C. Leggatt.

May 22: Clinical cases presented by Dr. Dorney and Dr. King.

June 6: Paper by Dr. Dorney: "Fluid Balance."

June 20: Clinical cases presented by Dr. Moore, Dr. Brienl and Dr. Joyce.

July 18: Films were demonstrated by courtesy of Parke, Davis and Company: (a) Cesarean section; (b) ovarian hormones; (c) treatment of scalp wounds.

August 15: Clinical cases presented by Dr. Dorney and Dr. King.

September 12: Clinical cases by Dr. Moore, Dr. Emery and Dr. King.

September 26: Paper by Mr. T. U. Ley: "Bone and Joint Tuberculosis."

The year has been an active one, the pleasing feature being the number of clinical demonstrations. I wish to thank all members for their interest and cooperation.

L. HALBERSTATER,
President.

South Coast Local Medical Association.

The year ending with the annual meeting of the South Coast Local Association on September 28, 1950, has been a very successful one. The eagerness of most practitioners to get together and discuss the common problems has been shown by the good average attendance at meetings.

During the year the two main questions that came up for discussion and called for special meetings were:

1. The formation of the Medical Benefits Fund of Australia. The opportunity was fortunately given to all members to have details of the working of the scheme explained to them. It has received a favourable reception from practitioners in this area.

2. Fees. An attempt has been made to have consultation fees uniform in this area. In May, 1950, the following amendment of local fees was adopted, namely: (a) ordinary consultation, 10s. 6d.; (b) visit to home, 12s. 6d.; (c) special urgent call to home, 1s.; (d) complete overhaul, 1s.; (e) first consultation on holidays and Sundays, 1s.; (f) calls and consultations from 9 p.m. to 7 a.m., 1s.

However, at the annual general meeting it was unanimously decided that an increase in fees was indicated, and accordingly consultation fees were increased to 12s. 6d. and visits to home increased to 15s. as from October 1, 1950.

The members of the South Coast Local Association are greatly indebted to the Queensland Post-Graduate Medical Education Committee for arranging an excellent series of lectures during the past year. Visiting lecturers included Dr. A. Paterson, Dr. L. Walters, Dr. Lloyd Simmonds, Dr. A. V. Meehan and Dr. N. Gutteridge. While on a short stay in Southport after the 1950 congress, Dr. B. T. Edye, of Sydney, kindly gave a surgical address to our members. We are deeply grateful to all of these gentlemen for their valuable and valued assistance in our work.

At the annual general meeting of the South Coast Local Association, held on September 25, 1950, the following office bearers were elected for the ensuing year: *President*, Dr. R. Levy; *Vice-President*, Dr. A. Golden; *Honorary Secretary*, Dr. W. H. Nette; *Honorary Treasurer*, Dr. J. Bogle. The membership is 11.

O. N. LLÓYD,
Retiring Honorary Secretary, South
Coast Local Association, British
Medical Association.

Nambour Local Medical Association.

The trend of thought and business in our local association over the past twelve months has differed from the usual.

Our aim has been to improve the standard, and to increase the scope of our medical treatment and investigation—on the cooperative basis. With this as our goal, our meetings have been mainly of a business nature and we commend this aspect to other country areas. We have been able to set up a local blood bank, local pathological service to improve our hospital set-up *et cetera*, and have been able to roster our work and coordinate our services.

Meetings have been held with local pharmacists, enabling a smooth introduction to the district of both the Pharmaceutical Benefits and the Medical Benefits Fund of Australia, the latter being launched by our association calling a public meeting. We have striven to have our members represented in all relative bodies in the area, and at representative Branch meetings *et cetera* in Brisbane. We were well represented at congress, but regret that southern visitors were not given the opportunity to visit our and other sub-centres.

Clinical work has not been neglected, although it was relegated to second position whilst other more important matters were attended to. A few isolated lectures by visiting men and several instructive film evenings have, however, filled the bill.

The chairman for the past twelve months, Dr. Kesteven, has been reelected, and likewise the secretary-treasurer, Dr. J. E. Trotter.

J. E. TROTTER,
Honorary Secretary-Treasurer.

Mackay Local Medical Association.

Quarterly meetings of the association were held during 1949-1950. Attendances at these meetings remained high.

The scheme for annual holidays, whereby all local practitioners act as *locum tenens* for a practitioner on holiday, was tried out with success during 1950. The Mackay and District Friendly Societies agreed to the scheme in so far as it affected lodge patients.

Discussion between the Federal Council of the British Medical Association in Australia and the Federal Government concerning national health schemes was followed with interest. Dr. B. L. W. Clarke addressed members on the principles of the negotiations in April, 1950, and his visit to Mackay was greatly appreciated.

Dr. A. Fryberg visited Mackay in February, 1950, to discuss part-time paid medical officers to the General Hospital and concluded with a lecture on poliomyelitis. As a result of his visit, part-time paid medical officers have now been appointed to the Mackay General Hospital.

Mr. S. N. Cobbold visited Mackay in October, 1950, to discuss arrangements concerning the Medical Benefits Fund of Australia.

Visiting post-graduate lecturers for the year were Dr. C. A. Leggett, Dr. J. Woodley, Dr. N. Gutteridge, Dr. A. Inglis, Dr. A. R. Murray and Dr. R. Row. All lectures were greatly appreciated.

Papers read by local practitioners during the year were: Dr. M. J. Gallagher, "Episodes during Nearly 40 Years of Medicine"; Dr. I. H. Chenoweth, "Sterility"; Dr. P. W. Hopkins, "Prostatic Enlargement". Films were shown by Dr. R. Grant on "Open Ether Anaesthesia" and "Cardiac and Respiratory Arrest".

Office bearers: The office bearers elected at the annual meeting are: *President*, Dr. P. W. Hopkins; *Honorary Secretary*, Dr. S. C. Williams. The membership is 16.

Sections for Study of Special Branches of Medical Knowledge.

Medical Historical.—Professor H. J. Wilkinson, Chairman; Dr. G. B. V. Murphy, Honorary Secretary.

Obstetrical and Gynaecological.—Dr. Robin Charlton, President; Dr. Roy Hemsley, Honorary Secretary.

Ophthalmological.—Dr. F. Garrett Scoles; President; Dr. James Hart, Honorary Secretary.

Orthopaedics.—Dr. George Douglas, Chairman; Dr. A. McSweeney, Honorary Secretary, Dr. L. P. Musgrave, Honorary Treasurer.

Oto-Rhino-Laryngological.—Dr. Walter Crosse, President; Dr. A. K. Green, Honorary Secretary.

Pædiatrics.—Dr. P. A. Earnshaw, Chairman; Dr. David Jackson, Honorary Secretary.

Radiology.—Dr. Val McDowall, President; Dr. J. R. Adam, Honorary Secretary.

Surgical.—Dr. Alan E. Lee, Chairman; Dr. R. S. Cohen, Honorary Secretary.

Anæsthesia.—Dr. Arnold Robertson, President; Dr. John Woodley, Honorary Secretary; Dr. J. H. Willson, Honorary Treasurer.

Historical Section (British Medical Association).

The Historical Section of the British Medical Association (Queensland) was reformed and resumed its activities on February 2, 1949, its aim being to collect and preserve historical medical data and its immediate object to collect material for an exhibition at the 1950 Australasian Medical Congress. Professor Bostock was elected chairman. To date thirteen meetings have been held.

The committee coopted the services of Messrs. Hornibrook and Pring, of the Oxley Memorial Library, and Messrs. A. A. and A. Morrison, of the Historical Society of Queensland.

Investigations were made as to the whereabouts of some of the historical records of early practitioners and of the Brisbane General Hospital. Letters were sent to many practitioners in Queensland, who, it was thought, might be able to locate suitable material or donate historical articles. The response showed that some members were extremely interested and willing to help.

A good deal of attention was directed to obtaining material for the Historical Exhibition at the Australasian Medical Congress. This acted as a great stimulus to donors. A considerable number of the exhibits ultimately were given to form the basis of a museum of medical history at the university which has been officially recognized by the Registrar of the university.

It was hoped that some lectures referring to historical matters could be given during the coming year and that further exhibitions during post-graduate week and the ultimate acquisition of articles for the museum would take place.

The work has been given great impetus by the enthusiasm of Professor Wilkinson and Professor Bostock, Dr. Winterbotham, and Messrs. Hornibrook, Pring, A. Morrison, A. A. Morrison and Mason.

At the last meeting Professor Bostock vacated the chair in favour of Professor Wilkinson.

G. B. V. MURPHY,
Honorary Secretary.

Ophthalmological Society of Australia (British Medical Association), Queensland Branch.

At the annual meeting of the Ophthalmological Society of Australia (British Medical Association), Queensland Branch, held on October 31, 1950, the following office bearers were elected: *President*, Dr. A. V. Henry; *Secretary*, Dr. James Hart; *Treasurer*, Dr. D. C. McSweeney; *Federal Councillor*, Dr. F. Garrett Scoles.

Four meetings were held during the year. The section was concerned almost exclusively with congress planning.

JAMES HART,
Secretary.

Surgical Section (British Medical Association).

A revival meeting of the Surgical Section was held in May, 1949, when the following office bearers were elected: *Chairman*, Dr. Alan E. Lee; *Honorary Secretary*, Dr. R. S. Cohen; *Committee*, Dr. L. M. McKillop, Dr. I. Burt and Dr. Konrad Hirschfeld.

It was resolved that quarterly meetings be held: May, 1949—Dr. Konrad Hirschfeld discussed the "Pathology and Treatment of Acute Appendicitis"; November, 1949—Dr. C. Leggett discussed the various aspects of his trip to the United States of America, with special references to clinics visited; August, 1949—Dr. Milton Geaney read a paper on "Inguinal Hernia"; April, 1950—Dr. John Lynch spoke of his recent trip to Britain and made special mention of the "Surgery of the Thymus Gland"; July, 1950—Dr. Alan Lee spoke on "The Surgery of Peptic Ulcer".

The average attendance at all meetings was 16.

R. S. COHEN,
Honorary Secretary.

Orthopaedic Section (British Medical Association).

During the past year the clinical meetings of the Section have been restricted to those concerned with the Australasian Medical Congress. At a recent business meeting the frequency and nature of clinical meetings were under discussion and it was agreed that about three meetings per year would be satisfactory and that they should be held alternatively at the Brisbane and Mater Public Hospitals.

Several business meetings have been held, which have all been well attended, to discuss the British Medical Association-State Government Insurance Fee Schedule concerning which a postal ballot had been held. At one of these meetings we were privileged to have the personal advice of two members of the Council—Dr. Alan E. Lee and Dr. H. W. Horn—and that of the Honorary Secretary of the Queensland Branch, Dr. J. R. Adam. After discussion it was decided to appoint a subcommittee of the Section comprising Dr. Stubbs Brown, Dr. J. R. S. Lahz and Dr. A. McSweeney, to draw up a revised schedule for orthopaedic surgeons' fees under the British Medical Association-State Government Insurance Agreement. It is proposed to submit this to the Council for consideration in due course.

Dr. G. Douglas was reelected chairman for the year 1950-1951. Dr. L. Musgrave was elected honorary treasurer in place of Dr. H. Crawford, who resigned, and Dr. A. McSweeney was elected honorary secretary of the Section in place of Dr. J. R. S. Lahz, who also resigned.

The financial statement handed in by the retiring treasurer was read and received at the election meeting on July 21, 1950.

ANTHONY MCSWEENEY,
Honorary Secretary.

Pædiatric Section (British Medical Association).

Report on work and operations, 1949-1950.

This Section has held two clinical meetings.

At the Brisbane Children's Hospital cases illustrating the following conditions were shown: rheumatoid arthritis, nephrosis (Dr. Arden), congenital bowel obstruction (Dr. Fraser), neoplasm of mediastinum, malignant abdominal tumour (Dr. Paterson), toxoplasmosis (Dr. Chalk).

At the Mater Children's Hospital the subjects demonstrated were acholuric family jaundice (Dr. Jackson), encephalopathies (Dr. Earnshaw and Dr. Fraser), congenital abnormality of thoracic spine, osteomyelitis of a lumbar vertebra (Dr. McSweeney), *Dermatitis herpetiformis* (Dr. Foote), congenital diaphragmatic hernia (Dr. Earnshaw).

A third meeting, which was to take the form of a discussion on juvenile tuberculosis, had to be cancelled, but it is hoped to hold this discussion later.

Prior to the Australasian Medical Congress (British Medical Association), Seventh Session, a subcommittee composed of members of the Section held several meetings for the purpose of planning the programme of the Section of Pædiatrics, of which Dr. A. E. Paterson was secretary and Dr. P. A. Earnshaw the local vice-president.

The inaugural meeting of the Australian Pædiatric Association held on May 26, 1950, was an event of the greatest importance. There is now a Federal body to coordinate pædiatric activities in the several States. The Queensland group, which will serve as a link between this body and all Queensland practitioners who have pædiatric interests, offers its support with enthusiasm.

D. C. JACKSON,
Honorary Secretary.

Joseph Bancroft Oration.

The twenty-fifth Bancroft Oration was delivered by Dr. E. S. J. King, M.D. (Melb.), M.S. (Melb.), F.R.C.S. (Eng.), on Friday, August 4, 1950, at 8.15 p.m. at the Lecture Theatre of the Medical School. The title of the oration was "The Law of Life". There were 60 visitors and members present. The Bancroft Memorial Medal was presented to the orator by the President, and a vote of thanks was moved by Dr. J. V. Duhig, seconded by Dr. Konrad Hirschfeld, and carried by acclamation.

Jackson Lecture.

The annual lecture in memory of the late Ernest Sandford Jackson was delivered by Dr. L. P. Winterbotham on Friday, October 6. The title of the lecture was "Primitive Medical Art and Primitive Medicine—Men in Australia". This is a subject in which Dr. Winterbotham has taken a very keen interest and he has inspired the Senate of the University of Queensland to establish an Ethnological Museum, of which he is the honorary curator.

Medical Benefits Fund of Australia (Queensland Branch).

The fund in Queensland commenced operations on July 4, 1950, from offices situated at Strand Building, Queen Street, Brisbane.

The public are showing considerable interest in the opportunity offered to them by enrolling in either the hospital or medical and surgical sections of the fund, or both, thus providing for the major cost of expenses involved in hospitalization or medical and surgical care. Interest, as quoted above, does not necessarily mean enrolments, and experience has proved that the majority of people want full details of their proposed investment before participating in a new venture. As details of the fund have become known, so have enrolments increased, and the stage has now been reached where contributors are passing on to their friends the merits of the fund, thus easing the necessity for intensive individual propaganda and at the same time snowballing the number of contributors.

A considerable amount of work entailed in establishing the fund in Queensland has been carried out by the British Medical Agency of Queensland Proprietary, Limited, under the direction of an executive comprising five medical practitioners, and it is pleasing to note that the growth of the fund has been substantial, and with the recent appointment of several enrolling agents in each district throughout the State, is increasing rapidly.

British Medical Agency of Queensland Proprietary, Limited.

Two highlights of the past twelve months have been congress and the registration of the Medical Benefits Fund of Australia. The services of the agency were utilized to a considerable extent in connexion with both these unusual activities, with the result that an era in busy years have been experienced.

Some work may have suffered as a consequence, but things are now normal and service to members is again the password.

Financial results of the year are reported to be satisfactory.

Queensland Medical Finance Proprietary, Limited.

Inquiries for financial assistance are inclined to be on the up-grade. However, with the heavy increased values of properties and some restriction in funds which may be available, there is not the freedom of action such as has been experienced in the past.

Applications by members seeking financial assistance in the purchase of medical practices will receive every consideration.

The University of Queensland.

British Medical Association (Queensland Branch): Medical Students' Loan Fund.—The personnel of the committee of administration is as follows: Dr. C. A. Thelander (chairman), Professor H. J. Wilkinson, Professor E. S. Meyers, Dr. Arnold Robertson, Dr. Alex. Murphy, a representative of the University of Queensland Medical Society (nominated annually by the society), and the ex-officio members of the Council.

The fund now stands at £717 4s. 2d., and during the year £57 19s. 3d. was donated by members of the Branch. An amount of £600 has been invested in advanced subscription to the Commonwealth Government Loan.

University of Queensland Medical Society.—Dr. W. H. Steel acts as liaison officer between the Council and the society. Mr. G. S. Hocker is the member representing the society on the committee of the Medical Students' Loan Fund.

Honorary Associate Members of the Branch.—The number of honorary associate members has increased during the year, there now being 161: 38 were elected during the year, and 38 former associate members were elected to full membership on graduation.

Through the courtesy of the Branch, students in their clinical years may, if they wish, receive copies of the *British Medical Journal* at a reduced rate of subscription. This privilege is also extended to honorary associate members of the Branch by the management of THE MEDICAL JOURNAL OF AUSTRALIA.

The Memorial Prize of the Queensland Branch of the British Medical Association.—The memorial prize for 1949 was awarded to Dr. R. S. J. Simpson for the highest percentage in clinical medicine in the medical course of the University of Queensland.

Harold Plant Memorial Prize.—Upon the recommendation of the Faculty of Medicine, the Harold Plant Memorial Prize was awarded to Dr. Robert F. O'Shea for 1949.

William Nathaniel Robertson Medal.—Advice was received from the Registrar, University of Queensland, that two medals had been awarded in 1949 to Dr. Robert F. O'Shea and Dr. W. D. Friend.

Post-Graduate Medical Education Committee.—The representatives of the Branch on this committee are Dr. Alan Lee, Dr. J. R. S. Lahz and Dr. Harold R. Love.

The various State post-graduate committees now work in association with a central body—the Australian Post-Graduate Federation in Medicine. The individual committees and the Federation are in constant liaison with the British Post-Graduate Federation. This liaison greatly facilitates the sponsorship of post-graduates wishing to travel overseas to further their studies. Arrangements are made to find places for them in post-graduate courses in Great Britain and to have accommodation reserved for them.

Eminent visitors from overseas during 1950 to deliver lectures in Brisbane were Dr. O. T. Claggett, of the surgical staff, and Dr. Lee Eaton, diagnostician, both on the staff of the Mayo Clinic; Professor F. J. Browne, recent Professor of Obstetrics and Gynaecology, University College Hospital, London; Dr. Daniel Blain, Director of the American Psychiatric Association; Professor Francis G. Blake, Professor of Medicine, Yale University; Professor Arthur W. Grace, Professor of Dermatology and Syphilology, Long Island College of Medicine, New York.

The committee has purchased a "Pyrox" electric wire recorder, and recordings have been made of several lectures given by the overseas lecturers. The British Medical Association (Queensland Branch) has agreed to meet one-third of the cost of the recorder.

New centres visited during the year were Bundaberg and Bowen.

Dr. David Jackson has been appointed Director of Post-Graduate Studies from December 1, Dr. P. H. Macindoe having tendered his resignation to take effect from that date.

The Ethnological Museum of the University of Queensland has been established during the year. The honorary curator, Dr. L. P. Winterbotham, is anxious to acquire all kinds of aboriginal implements, both wood and stone, used for any purpose by the natives (especially for ceremonial use), in order to form a first-class ethnological museum, and wishes to thank members of the medical profession who have already contributed exhibits.

Federal Medical War Relief Fund.

The Local Committee of Management: Dr. J. G. Wagner, chairman, Dr. F. W. R. Lukin, honorary secretary, Dr. Milton Geaney, Dr. Harold R. Love and Dr. J. V. Duhig.

The trustees of the Federal Medical War Relief Fund have granted substantial assistance to ten Queensland beneficiaries (widows and dependants of deceased medical officers). Total disbursements in Queensland amounted to £1080.

Members are reminded that contributions to the fund are still needed, since for the current year total disbursements from the Federal fund exceeded income by £910.

Federal Council of the British Medical Association in Australia.

The Federal Council met three times during the year. The first meeting was held at Melbourne from January 15 to 19, and took the form of a conference with the newly appointed Minister for Health, Sir Earle Page.

History was made by the second meeting being held in Brisbane, from May 26 to May 31, as this was the first occasion on which the Federal Council has met here. The third meeting was held in Sydney on September 23 and 24.

At all these meetings the Branch was represented by Dr. Alan E. Lee and Dr. H. W. Horn, and reports of the business transacted were published in THE MEDICAL JOURNAL OF AUSTRALIA.

"The Medical Journal of Australia."

We were pleased to have the Editor of THE MEDICAL JOURNAL OF AUSTRALIA, Dr. Mervyn Archdall, at the last annual meeting of the Branch which was held on December 9, 1949.

The Editor and his staff are to be congratulated upon the excellent report of the proceedings of the Seventh

Session of the Australasian Medical Congress (British Medical Association) held in Brisbane in May-June, which appeared in the issues of the journal of July 15, 22 and 29, 1950.

Australasian Medical Publishing Company, Limited.

The directors' meeting of the publishing company was held at British Medical Association House, Wickham Terrace, Brisbane, on Monday, May 29, 1950. This is the first time such a meeting has been held in Brisbane. Dr. Alan E. Lee represented the Branch at the meeting.

Australasian Medical Congress (British Medical Association).

The Seventh Session of the Australasian Medical Congress (British Medical Association) was held in Brisbane from May 27 to June 3 and was acclaimed a success from every aspect. There were 850 members enrolled and the President, Dr. Alex. Murphy, and the Honorary General Secretary, Dr. W. J. Saxton, and his assistants, Dr. David Jackson and Dr. Gordon McLean, and Executive Committee are to be congratulated upon the efficiency of its organization. The presidential address delivered by Dr. Alex. Murphy at the inaugural meeting was a memorable event and one of which his Queensland colleagues were justly proud. It was a pleasure to have members from all parts of the British Commonwealth and from every State in Australia meeting together at scientific and social gatherings and getting to know one another. The Eighth Session will take place in Melbourne in 1952. Sir John Newman Morris has been elected president.

British Commonwealth Medical Conference.

Brisbane was honoured in having the second annual meeting of the British Commonwealth Medical Conference held here on May 23, 24 and 25, 1950. Sir Victor Hurley, President of the British Commonwealth Medical Conference and President of the Federal Council of the British Medical Association in Australia, was chairman. The Deputy Honorary Secretary-Treasurer was Dr. A. Macrae, Deputy Secretary of the British Medical Association (deputizing for Dr. Charles Hill, Secretary of the Association). Dr. J. G. Hunter was the Local Organizing Secretary. The delegate from Great Britain was Dr. E. A. Gregg, Chairman of the Council of the British Medical Association. Dr. H. R. R. Grieve and Dr. Alan E. Lee were appointed delegates to represent Australia.

In addition there were delegates from Canada, India, New Zealand, Pakistan, South Africa and Southern Rhodesia. Apologies were received from the Eire and Ceylon Associations.

A number of interesting papers were delivered during the conference and the net result was a better understanding of the problems that face the medical associations of the British Commonwealth.

The Queensland Branch Council entertained the delegates at a fork dinner on May 23 at Lennon's Hotel.

World Medical Association.

The Fourth General Assembly of the World Medical Association was held from October 16 to 20 in New York City and Dr. Alex. Murphy was appointed by the Federal Council to represent the British Medical Association in Australia thereat.

Social.

The annual ball of the Branch was held in the City Hall on June 2, and took the form of the congress ball. All congress visitors were the guests of the Queensland Branch. It was a brilliant function and a fitting finish to congress week. The attendance numbered 1100. The Branch Council entertained the British Commonwealth Medical Conference delegates and lecturers, and the representatives of the Federal Council of the British Medical Association in Australia at a fork dinner which was held at Lennon's Hotel on May 23.

Conclusion.

The year has been a momentous one. We have been hosts to an Australasian Medical Congress and to a British Commonwealth Medical Conference—even though the word British be now unofficial it is none the less precise.

In the realm of social medicine we have had the substitution of the Earle Page plan of medical assistance to the community for the Chifley-McKenna nationalization project.

The Pharmaceutical Benefits Scheme is now working reasonably well. Your association has sponsored the launching of the Medical Benefits Fund of Australia in Queensland.

All this has meant an enormous amount of work and thought. We owe the deepest possible debt of gratitude to our representatives on the committee of the Australasian Medical Congress, to our Federal Council representatives, and to our representatives on the local branch of the Medical Benefits Fund.

In addition to all this the ordinary work of the Council has in no way abated, but the reverse; and I should like to express for you all our admiration and appreciation of the work of our honorary secretary, Dr. Adam, and of our secretary, Mrs. Spooner. This past year has been, I feel, one of the most arduous in the history of the Queensland Branch and, at the same time, one of the most smoothly running and efficiently organized. For this we have Dr. Adam and Mrs. Spooner to thank.

Our relations with the Press, with the Health Department, and with our various sister and ancillary organizations have been worked by good will and mutual cooperation.

I welcome my successor, Dr. Glen Hickey, to the chair. I know the same help and support that have been forthcoming in the past will also be his, in his year of presidential office.

HAROLD R. LOVE,
President.

BALANCE SHEET AND FINANCIAL STATEMENT.

The balance sheet and financial statement as at November 15, 1950, which had previously been circulated among members, was adopted on the motion of Dr. H. W. Horn, seconded by Dr. G. V. Hickey.

AMENDMENT OF ARTICLES.

Chairman of Council.

Dr. F. W. R. Lukin moved and Dr. E. H. Derrick seconded the following amendments to certain of the Articles of Association, notice of which had been duly given.

1. *Interpretation:* The following words shall be inserted after the word "President-elect" in the seventeenth line of Article (1), "the Chairman of the Council".

45. The Council may meet, convene its meetings, adjourn and otherwise regulate its proceedings as it thinks fit but so that it shall meet not less than four times a year and the Council shall elect at its first meeting a Chairman of the Council who shall preside over all meetings of the Council provided however, that in the absence of the Chairman of the Council from any meeting such meeting shall appoint a Chairman thereof from amongst the members present thereat. No business shall be transacted at a meeting of the Council unless at least 8 members be present.

48. The President, or the Chairman of the Council, may if he thinks fit and shall upon receiving a requisition signed by not less than five members of the Council and specifying the business for which a Special Meeting of the Council is required call together a Special Meeting thereof but at such Meeting no business shall be transacted other than that for which such Special Meeting was called.

52. There shall be the following Officers of the Association, namely a President, a President-Elect, a Chairman of the Council, a Past President, Vice-Presidents (if any) an Honorary Treasurer and an Honorary Secretary.

54. (a) The Chairman of the Council shall be elected annually at the first meeting of the Council as provided by Article (45) hereof and shall preside over all meetings of the Council at which he is present.

59. In the event of the death during his term of office or the resignation of the President or President-Elect or the Chairman of the Council the vacancy thus created shall be filled until the next Annual Meeting in the manner following, namely:

(a) In the case of the President the Past President shall discharge the duties of the office.

(b) In the case of the President-Elect the Council shall appoint a President-Elect in his stead.

(c) In the case of the Chairman of the Council, the Council shall appoint a Chairman of the Council in his stead.

65. (c) The President, the President-Elect, the Chairman of the Council, the Honorary Treasurer and the Honorary Secretary shall be ex-officio members of all committees.

Dr. Lukin explained that the proposed alteration of the duties of the British Medical Association (Queensland Branch) President arose from consideration of several factors.

The work of the Branch Council was steadily increasing in conformity with the progress of the State; consequently the amount of time which the President required to devote to his duties was much greater than it was a generation ago. Some steps required to be taken to relieve a burden to which few men found themselves able to devote sufficient time.

The easiest way of relieving this strain would be to appoint a Chairman of Council who would automatically relieve the President of the constant worry of presiding at all Council meetings. The qualities for a successful chairman were not always found to be present in the person who was honoured by the presidency. For example, to appoint as President an honoured member of the profession who resided outside the metropolitan area was difficult. In addition with the volume of work now being presented to the Council, it was necessary that the chairman should be able to handle the business with speed and accuracy—with a President retiring each year his experience in conducting the Council business smoothly was annually forfeited. This system was in operation in the parent body of the British Medical Association—Dr. Gregg, who represented Great Britain at the British Commonwealth Medical Conference in Brisbane in May last, was the present chairman. The Victorian Branch also had a Chairman of Council as well as a President.

The motion was carried.

AMENDMENT OF BY-LAWS.

Members of Council.

Dr. F. W. R. Lukin proposed and Dr. E. H. Derrick seconded the following amendments to by-laws, notice of which had been duly given to members.

By-Law 8 (a) (Addition).

From and after the election of members of the Council for the year 1950/51 as provided by By-Law 8 hereof, the election of candidates for the office of members of the Council shall be as follows:

i. The seven members of the Council who received the fewest number of votes at the annual general meeting held in 1950 shall automatically go out of office at the date of the next annual general meeting and the seven members of the Council who received the highest number of votes at such meeting shall remain in office for a period of two years thereafter without further election. Any of the first mentioned seven members are, however, eligible for re-election at the next annual general meeting.

ii. The seven members who received the highest number of votes at such meeting shall go out of office at the end of the said period of two years but shall be eligible for re-election.

iii. In any subsequent year seven members only of the Council shall be elected and shall hold office for two years.

iv. In the event of a member having been appointed or elected to fill a vacancy on the Council created by the death or retirement of a member of the Council before the expiration of the term of his office, such member shall only hold office for the remainder of the term for which the member so dying or retiring as aforesaid had been elected or appointed.

v. Except in so far as By-law 8 has been altered by this by-law, the provisions thereof shall hereafter apply to the election of members of the Council so far as such provisions do not conflict with this by-law.

By-Law 4 (a) (Addition).

1. A person who shall have been a member of the Association continuously for a period of fifty years shall become an Honorary Life Member with full privileges and shall not be required to pay any annual subscription as from 1st January next succeeding the expiration of such period.

Dr. Lukin said that it had been felt for some time by the Council that the method of election of members of the Council had certain unsatisfactory features. He quoted two examples: (i) The election might result in a Council which was unbalanced in its proportion of general practitioners and specialists, and also unbalanced in its proportioned representation of various professional interests. (ii) It was possible under the present system of election for the incoming Council to consist entirely of new members, none of whom had had previous experience.

This was obviously undesirable as the loss of experience could not be entirely compensated by the enthusiasm of new blood, and particularly applied to members of the Council who were Federal Council representatives. This office required considerable experience and knowledge of federal affairs, as well as of State medical matters. It was extremely undesirable that changes should frequently occur in the Branch's federal councillors.

In order to maintain more continuity of service it was suggested that the Council should be elected for two years and that each year half the Council only should be required to stand for re-election. This would, in fact, give plenty of scope for election of new members without making the loss of too many of the experienced councillors.

The motion was carried.

QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION.
(INCORPORATED.)

Balance Sheet as at November 15, 1950.

	£	s.	d.	£	s.	d.		£	s.	d.	£	s.	d.
FIXED LIABILITIES:							FIXED ASSETS:						
Loan from Queensland Medical							At cost, less depreciation.						
Land Investment Co. Limited ..				4,650	0	0	Land and Buildings—						
CURRENT LIABILITIES:							B.M.A. House, .. £2,218 10 0						
Subscriptions for Remittance to—							Bartley Street						
British Medical Association,							Property 1,588 0 0				3,806	10	0
London	34	10	3				Architects' Fees—preparing plans						
Australasian Medical Publishing							for prospective new building—at				300	0	0
Company Limited, Sydney ..	31	11	6				cost				150	0	0
				66	1	9	Library—at valuation						
ASSOCIATION FUNDS:							Typewriters, Book Cases, Balopti-				156	19	0
Sinking Fund	2,460	7	10				con and Furniture				4	10	0
Superannuation Fund	607	7	9				Bancroft Medals and Collar ..						
	3,067	15	7							4,417	19	0	
Accumulation Fund	10,027	12	4				Queensland Medical Land Invest-						
				13,095	7	11	ment Co. Ltd., 5,950 shares of						
							£1 each paid to 10s. each—at				2,975	0	0
							cost						
							British Medical Agency of Queens-						
							land Pty. Ltd.—258 shares of £1				258	0	0
							each, fully paid at cost						
										3,233	0	0	
							Australasian Medical Publishing						
							Company Limited, Sydney—						
							5% Debentures—at cost				55	0	0
							3½% Series "E" Debentures—						
							at cost				1,100	0	0
							Advance not yet converted to						
							Series "E" Debentures				128	2	0
										1,283	2	0	
										3,934	1	0	
							CURRENT ASSETS:						
							Australian Consolidated						
							Inscribed						
							Stock—at cost—						
							3½% maturing 1959 .. £1,500 0 0						
							3½% maturing 1960 .. 300 0 0						
										1,800	0	0	
							English, Scottish and Australian						
							Bank Ltd.				3,566	18	0
							Sundry Debtors				412	0	0
							Electric Light Deposit				6	0	0
							Cash				24	15	1
										5,809	13	1	
							FUND INVESTMENTS:						
							Sinking Fund—						
							Australian Consolidated In-						
							scribed Stock—						
							£280 3½% maturing 1951—						
							at cost				278	3	3
							£90 3½% maturing 1960 ..				90	0	0
							Advance Subscriptions to Com-						
							monwealth Loan				2,000	0	0
							Commonwealth Savings Bank,						
							Brisbane				92	4	7
										2,460	7	10	
							Superannuation Fund—						
							Commonwealth Savings Bank,						
							Brisbane				607	7	9
										3,067	15	7	
										£17,811	9	8	

We have compared the above Balance Sheet with the books, accounts and vouchers of the Queensland Branch of the British Medical Association (Incorporated), and have obtained all the information and explanations we have required.

In our opinion, the Balance Sheet is properly drawn up to exhibit a true and correct view of the state of the Association's affairs as at November 15, 1950, according to the best of our information and the explanations given to us, and as shown by the books of the Association.

The Register of Members and other records which the Company is required to keep by the Companies Acts of 1931-1942, or by its Articles, have, in our opinion, been properly kept.

R. G. GROOM & Co.,
Chartered Accountants (Aust.),
Auditors.

H. W. HORN,
Honorary Treasurer.

Brisbane.
November 15, 1950.

MEMORIAL ROLL.

The Memorial Roll of the Queensland Branch was read by the President, the members standing.

OFFICE-BEARERS.

The President then announced the names of the office-bearers for the ensuing year:

President: Dr. Glen V. Hickey.

President-Elect: Dr. K. B. Fraser.

Past President: Dr. Harold Love.

Honorary Secretary: Dr. J. R. Adam.

Honorary Treasurer: Dr. Harold W. Horn.

Members of Council (elected by ballot): Dr. B. N. Adsett, Dr. H. W. Anderson, Dr. Felix Arden, Dr. B. L. W. Clarke, Dr. R. M. Ferguson, Dr. H. W. Horn, Dr. Alan E. Lee, Dr. F. W. R. Lukin, Dr. Alex Mayes, Dr. H. S. Patterson, Dr. W. J. Saxton, Dr. W. H. Steel, Dr. S. M. Stephenson, Dr. J. G. Wagner.

ELECTION OF ETHICS COMMITTEE.

On the motion of Dr. F. W. R. Lukin, seconded by Dr. G. V. Hickey, the members of the Ethics Committee were reelected.

ELECTION OF AUDITORS.

On the motion of Dr. H. W. Horn, seconded by Dr. K. B. Fraser, Messrs. R. G. Groom and Co. were reelected auditors for the ensuing year.

INDUCTION OF PRESIDENT.

Dr. Harold Love then vacated the chair in favour of the new President, Dr. Glen V. Hickey, who thanked the members of the Branch for the honour they had done him, and paid a tribute to the work of his predecessor.

PRESIDENT'S ADDRESS.

Dr. Glen V. Hickey delivered his President's address (see page 137).

VOTES OF THANKS.

Appreciation of the skilled guidance of the retiring President was voiced by Dr. K. B. Fraser, Dr. Alex. Mayes thanked the retiring councillors, Dr. Arnold Robertson, Dr. R. S. Bennett, Dr. Lorimer Walker and Dr. J. R. S. Lahz, for their labours during the past year, and Dr. Harold Love expressed his gratitude to the secretary of the Branch, Mrs. Spooner, and her staff. Votes of thanks to all these persons were carried by acclamation.

Correspondence.

ELECTROCONVULSIVE THERAPY AND SCHIZOPHRENIA.

SIR: One or two cases I have seen recently show very clearly the danger of giving electroconvulsive therapy to early schizophrenics.

I think most practising psychiatrists here will agree that insulin shock therapy is the treatment of choice for this condition, and I know that the reasons given for not using insulin are the same all the world over, namely, shortage of trained staff, bed space and money; but I do not consider these reasons sufficient to justify the use of electroconvulsive therapy in early schizophrenia. To give electroconvulsive therapy to an early schizophrenic is worse than using morphine in undiagnosed abdominal pain, for not only does it mask the symptoms, but it often produces a temporary improvement. Everyone (except the doctor who pressed the button) thinks the patient is cured—until an exacerbation occurs and the patient has to be taken back to receive further electroconvulsive therapy, because by that time the schizophrenic process has continued its stealthy course so far that even insulin is of little use. Of course, exacerbations occur after insulin, too, but these are less frequent and less severe than those occurring after electroconvulsive therapy, and in the meantime the relatives are not living

under the fond delusion that the patient has been "cured" by "the electric treatment". They are on the lookout for early signs of exacerbation, and any conscientious psychiatrist will keep his insulin cases under frequent observation during the months following treatment.

My object in writing this is to suggest that to give electroconvulsive therapy to early schizophrenics in the face of modern medical knowledge is little short of a crime against the patient and his relatives, and runs counter to the best traditions of the psychiatric art. It also brings the use of electroconvulsive therapy into disrepute for the conditions where it is of real value, that is, the affective psychoses. We ought therefore, as responsible professional men, to be courageous enough to tell the relatives of schizophrenics that insulin is the treatment of choice, to refer the patient to the nearest mental or general hospital giving this treatment, and to refuse to countenance any compromise with this most serious mental illness. If, as often happens, relatives demand "electric treatment" in the hope of a quick and easy "cure", we should then call further on our store of courage, and refuse to take the case. A firm stand by a profession united in this respect would help to bring about improvements in mental hospitals, increased cooperation between intra-mural and extra-mural psychiatrists, and the wider establishment of psychiatric units attached to general hospitals—all of which would be to the ultimate benefit of our patients.

If we are to retain any ethical standing among professional members of the community, we must stop deluding our patients—and perhaps ourselves—that a quick and easy "cure" for schizophrenia is to be had from the genie in the Little Black Box.

Yours, etc.,
A. S. ELLIS.

Townsville,
North Queensland,
January 2, 1951.

THE COMMONWEALTH JUBILEE NUMBER.

SIR: I have the honour to acknowledge receipt of the Commonwealth Jubilee Number of your journal which I am reading with great interest especially for its historic contents which are full of interest to laymen as well as to those of the profession of medicine.

It is even a pleasure to find that since the physician of Chaucer whose "studie was but litel on the Bible" the profession has found comfort even in the words of the prophet Malachi who was generally so much of a mal-content.

With hearty congratulations on an honour to the jubilee it commemorates.

Yours, etc.,
E. R. HOLME.

36 Shell Cove Road,
Neutral Bay,
New South Wales.
January 8, 1951.

A HISTORY OF THE INDIAN MEDICAL SERVICE.

SIR: It was fitting that when the great medical service, which had done so much for India and for science, came to an abrupt end in 1947 after nearly 350 years, some general record of its unique work should be written.

This has been done fittingly by Lieutenant-Colonel Donald McDonald, under the title of "Surgeons Twoe and a Barber", from the first reference to the John Company doctors who sailed in the "four tall ships" of Captain James Lancaster in December, 1600. "Surgeons Twoe and a Barber" tells the fascinating story of this great service against the background of India from the first beginnings to the end of the British Raj.

The work is fully documented and copiously illustrated. The major part of the edition has been subscribed in advance by former officers of the Indian Medical Service, but a portion has been retained for the interested general public and for those members who for one reason or another did not receive notice of this publication.

Yours, etc.,
OWEN R. EVANS.

99 Great Russell Street,
London, W.C.1,
November 24, 1950.

Post-Graduate Work.

THE POST-GRADUATE COMMITTEE IN MEDICINE IN THE UNIVERSITY OF SYDNEY.

Clinical Meeting at Balmoral Naval Hospital.

THE Post-Graduate Committee in Medicine in the University of Sydney announces that a clinical meeting will be held at the Balmoral Naval Hospital, Balmoral, on Tuesday, February 13, 1951, at 2 p.m., when Dr. J. Colvin Storey will speak on "The Diagnosis and Treatment of Acute Abdominal Conditions". Clinical cases will be presented at 4 p.m., after afternoon tea. All members of the medical profession are invited to attend.

It is proposed to hold further clinical demonstrations at the Balmoral Naval Hospital on the following dates during the first half of 1951: March 13, April 17, May 15 and June 19. Details concerning these and further sessions to be held during the latter part of 1951 will be announced from time to time.

The Royal Australasian College of Physicians.

EXAMINATION FOR MEMBERSHIP.

INTENDING CANDIDATES for the examination for membership of The Royal Australasian College of Physicians to be held in March-April, 1951, are reminded that applications for this examination close on Saturday, February 3, 1951. Application forms may be obtained from the Honorary Secretary, 145 Macquarie Street, Sydney. The written examination will take place in capital cities where candidates are offering on Saturday, March 3, 1951, and the clinical examination will be held in Sydney from April 6 to 11, 1951 (approximately).

Obituary.

KENNETH BERTRAM HOPE.

WE regret to announce the death of Dr. Kenneth Bertram Hope, which occurred on December 27, 1950, at Hawthorn, Victoria.

HENRY WATSON.

WE regret to announce the death of Dr. Henry Watson, which occurred on January 5, 1951, at Parkes, New South Wales.

FRANCIS EDWARD WEBB.

WE regret to announce the death of Dr. Francis Edward Webb, which occurred on January 6, 1951, at Malvern.

Notice.

IN conjunction with the next meeting of the National Blood Transfusion Committee, a scientific meeting has been arranged for 8.15 p.m. on Thursday, February 8, 1951, at the Royal Australasian College of Surgeons, Spring Street, Melbourne. The programme will be as follows: "Trends in the Treatment of Rh Babies", Dr. Elizabeth Turner; "Some Aspects of Anæmia in Pregnancy", Dr. John Bolton; "Blood Transfusion Overseas", Dr. Cyril Fortune.

All members of the British Medical Association are cordially invited to attend the meeting and to take part in the discussion following the papers.

DISEASES NOTIFIED IN EACH STATE AND TERRITORY OF AUSTRALIA FOR THE WEEK ENDED DECEMBER 30, 1950.¹

Disease.	New South Wales.	Victoria.	Queensland.	South Australia. ²	Western Australia.	Tasmania.	Northern Territory. ³	Australian Capital Territory.	Australia. ⁴
Ankylostomiasis
Anthrax	1	..	..	..	..	..	1
Beriberi
Bilharziasis
Cerebro-spinal Meningitis ..	1(1)	1	..	..	..	..	..	..	2
Cholera
Coastal Fever(a)
Dengue
Diarrhoea (Infantile)	1	..	..	..	..	..	1
Diphtheria	4(3)	1(1)	4(2)	..	8(7)	..	..	..	17
Dysentery (Amoebic)	1(1)	..	..	..	..	..	..	1
Dysentery (Bacillary)	1(1)	..	1(1)	..	..	..	2
Encephalitis Lethargica
Erysipelas
Filariasis
Hemorrhoids
Hydatid
Influenza
Lead Poisoning
Leprosy
Malaria(b)	1(1)	..	..	..	..	..	1
Measles
Plague	42(18)	4	9(1)	..	..	7(4)	..	..	62
Poliomyelitis
Psittacosis	1	..	..	..	..	..	..	..	1
Puerperal Fever
Rubella(c)	1	1
Scarlet Fever	12(4)	6(4)	10(6)	..	6(5)	1	..	..	35
Smallpox
Tetanus
Trachoma
Tuberculosis(d)	25(18)	6(1)	5	..	12(9)	..	..	..	48
Typhoid Fever(e)	1	..	..	..	1(1)	..	..	..	2
Typhus (Endemic)(f)
Undulant Fever
Well's Disease(g)	5	..	..	..	..	..	5
Whooping Cough
Yellow Fever

¹ The form of this table is taken from the *Official Year Book of the Commonwealth of Australia*, Number 37, 1946-1947. Figures in parentheses are those for the metropolitan area.

² Figures not available.

³ Figures incomplete owing to absence of returns from the Northern Territory and South Australia.

⁴ Not notifiable.

(a) Includes Mosaic and Sarina fevers. (b) Mainly relapses among servicemen infected overseas. (c) Notifiable disease in Queensland in females aged over fourteen years. (d) Includes all forms. (e) Includes enteric fever, paratyphoid fevers and other *Salmonella* infections. (f) Includes scrub, murine and tick typhus. (g) Includes leptospirosis, Weil's and para-Weil's disease.

Nominations and Elections.

THE undermentioned have applied for election as members of the New South Wales Branch of the British Medical Association:

- Pelsley, Hazel Norma, M.B., B.S., 1951 (Univ. Sydney), Orange Base Hospital, Orange.
 Laszlo, John Eugene, registered in accordance with Section 17 (1) (c) of the *Medical Practitioners Act*, 1938-1950, 17 Gladswood Gardens, Double Bay.
 Mira, William John Dickson, M.B., B.S., 1950 (Univ. Sydney), Royal North Shore Hospital, St. Leonards.
 Chalmers, Robert, M.B., B.S., 1950 (Univ. Sydney), 319 Edgecliff Road, Woollahra.
 Loneragan, Thomas Paul, M.B., B.S., 1950 (Univ. Sydney), Lewisham Hospital, Lewisham.
 Blank, Joseph, registered in accordance with Section 17 (1) (c) of the *Medical Practitioners Act*, 1938-1950, 4 Ormond Street, Bondi.
 Oakley, Donald Waterhouse, M.B., B.S., 1941 (Univ. Sydney), 59 Kangaroo Street, Manly.
 Packard, Robert Spencer, M.B., B.S., 1950 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.
 Martin, Gwenda Elizabeth, M.B., B.S., 1950 (Univ. Sydney), St. George Hospital, Kogarah.
 Bowman, Reginald, M.B., B.S., 1950 (Univ. Sydney), 469 Oxford Street, Paddington.
 Colman, Robin Reuben Simon, M.B., B.S., 1950 (Univ. Sydney), 5 Elliott Street, Bondi.
 Edwards, Anthony Wilbraham Tollemache, M.B., B.S., 1950 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.
 Fitzpatrick, Ian Wade, M.B., B.S., 1950 (Univ. Sydney), 2 Ryrles Parade, Cremorne.
 Frost, Peter Taylor, M.B., B.S., 1950 (Univ. Sydney), Royal North Shore Hospital, St. Leonards.
 Gegg, William Stanley, M.B., B.S., 1950 (Univ. Sydney), c/o Leeton District Hospital, Leeton.
 Grosslicht, Robert, registered in accordance with Section 17 (1) (c) of the *Medical Practitioners Act*, 1938-1950, 22 Cowper Street, Randwick.
 Harrison, Harold Newton, M.B., B.S., 1950 (Univ. Sydney), 163 Fox Valley Road, Wahroonga.
 Hawkins, Hilary Margaret, M.B., B.S., 1950 (Univ. Sydney), Rachel Forster Hospital for Women and Children, Redfern.
 Lucas, William Gerald, M.B., B.S., 1950 (Univ. Sydney), Royal North Shore Hospital, St. Leonards.
 Pittar, Doreen Julie, M.B., B.S., 1951 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.
 Robson, Alastair Geoffrey Grindrod, M.B., B.S., 1951 (Univ. Sydney), Sydney Hospital, Sydney.
 Scrivener, Barrie Pedder, M.B., B.S., 1950 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.
 Stehbens, William Ellis, M.B., B.S., 1950 (Univ. Sydney), 2 Wetherill Street, Leichhardt.
 Wolfenden, William Horace, M.B., B.S., 1950 (Univ. Sydney), Sydney Hospital, Sydney.
 Lewis, Richard John Reynette, M.B., B.S., 1950 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.
 Huber, Felix, M.B., B.S., 1950 (Univ. Sydney), 1 Bardsley Gardens, North Sydney.
 Greaves, Collin Louis, M.B., B.S., 1950 (Univ. Sydney), 1 Keppel Avenue, Concord.
 Callaghan, Ronald Alan, M.B., B.S., 1950 (Univ. Sydney), 70 Georges River Road, Croydon.
 Gosby, Stanley Noel, M.B., B.S., 1950 (Univ. Sydney), Cessnock District Hospital, Cessnock.
 Christie, Marjorie Richardson, M.B., B.S., 1950 (Univ. Sydney), 138 Mount Street, Coogee.
 Orr, Kevin Bridson, M.B., B.S., 1950 (Univ. Sydney), Grafton Base Hospital, Box 151, P.O., Grafton 3C.
 Wilcox, Griffith George, M.B., B.S., 1946 (Univ. Sydney), 71 Gray Street, Kogarah.

The undermentioned have applied for election as members of the South Australian Branch of the British Medical Association:

- Handley, Harold Arthur, M.B., B.S., 1950 (Univ. Adelaide), Royal Adelaide Hospital, Adelaide.
 Davidson, Robert Thomas, M.B., B.S., 1950 (Univ. Adelaide), 12 College Street, College Park.
 Kirby, David Bevan, M.B., B.S., 1950 (Univ. Adelaide), 9 Dequetteville Terrace, Kent Town.
 Benson, William Herbert, M.B., B.S., 1950 (Univ. Adelaide), Royal Adelaide Hospital, Adelaide.

- Dunn, David Everson, M.B., B.S., 1950 (Univ. Adelaide), Royal Adelaide Hospital, Adelaide.
 Furler, Ian King, M.B., B.S., 1948 (Univ. Adelaide), Box 302, Port Augusta.
 Kumnick, Donald Kerr, M.B., B.S., 1950 (Univ. Adelaide), 119 Rose Terrace, Wayville.

The undermentioned have been elected as members of the South Australian Branch of the British Medical Association:

- Mueller, Merna Alma, M.B., B.S., 1950 (Univ. Adelaide), Ceduna, South Australia.
 Rogers, Richard Robsart, M.B., B.S., 1944 (Univ. Sydney), Wudinna, South Australia.
 Miller, Leslie Gordon, M.B., B.S., 1949 (Univ. Adelaide), Royal Adelaide Hospital, Adelaide.
 Rice, John David, M.B., B.S., 1930 (Univ. Adelaide), 157 East Terrace, Adelaide.

Diary for the Month.

- FEB. 1.—South Australian Branch, B.M.A.: Council Meeting.
 FEB. 2.—Queensland Branch, B.M.A.: Branch Meeting.
 FEB. 6.—New South Wales Branch, B.M.A.: Organization and Science Committee.
 FEB. 7.—Western Australian Branch, B.M.A.: Council Meeting.
 FEB. 9.—Queensland Branch, B.M.A.: Council Meeting.
 FEB. 13.—New South Wales Branch, B.M.A.: Executive and Finance Committee.

Medical Appointments: Important Notice.

MEDICAL PRACTITIONERS are requested not to apply for any appointment mentioned below without having first communicated with the Honorary Secretary of the Branch concerned, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

New South Wales Branch (Medical Secretary, 135 Macquarie Street, Sydney)—All contract practice appointments in New South Wales.

Victorian Branch (Honorary Secretary, Medical Society Hall, East Melbourne): Associated Medical Services Limited; all Institutes or Medical Dispensaries; Australian Prudential Association, Proprietary, Limited; Federal Mutual Medical Benefit Society; Mutual National Provident Club; National Provident Association; Hospital or other appointments outside Victoria.

Queensland Branch (Honorary Secretary, B.M.A. House, 225 Wickham Terrace, Brisbane, B17): Brisbane Associated Friendly Societies' Medical Institute; Bundaberg Medical Institute. Members accepting LODGE appointments and those desiring to accept appointments to any COUNTRY HOSPITAL or position outside Australia are advised, in their own interests, to submit a copy of their Agreement to the Council before signing.

South Australian Branch (Honorary Secretary, 178 North Terrace, Adelaide): All Lodge appointments in South Australia; all Contract Practice appointments in South Australia; Medical Officer, South Australian Railways.

Western Australian Branch (Honorary Secretary, 205 Saint Georges Terrace, Perth): Norseman Hospital; all Contract Practice appointments in Western Australia. All government appointments with the exception of those of the Department of Public Health.

Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to the Editor, THE MEDICAL JOURNAL OF AUSTRALIA, The Printing House, Seamer Street, Glebe, New South Wales. (Telephones: MW 2651-2.)

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